

CROWCON

GAS MONITORS

PROBLEM

Several Crowcon gas monitors are installed across a London train network, used to monitor methane and hydrogen sulphide levels from water drainage systems.

Each monitoring unit is connected to SCADA which relays when alarm limits have been exceeded, there is no real time monitoring to show current gas levels.

To obtain current values requires a site visit to manually record gas levels shown on the Crowcon display, but the gas monitoring locations are often in remote areas with limited restricted access.

CHALLENGE

The challenge was to create a communication system that could collect data direct from the Crowcon gas monitoring units in real time, with an analytical platform to detect variation in gas levels and raise pre-set alarms prior to exceeding the safe gas level limits.

As the communication system would take direct feed from the controller, the solution must protect the gas monitors from cyber threats an unauthorised access.



LAST DATA RECEIVED: 11/06/2025 13:18:22 BST	
System Uptime	128 days 13:36:15
System Status	OK
System Fault 1	OK
System Fault 2	OK
System Warning 1	OK
System Warning 2	OK
Channel 1 Name	FLA - Flammable Methane Detector
Channel 1 Status	OK
Channel 1 Level	0.000 %LEL
Channel 1 Alarm Limits	warning 20 alarm 40
Channel 2 Name	ESU - Environmental Sampling Unit
Channel 2 Status	OK
Channel 2 Level	7.380
Channel 2 Alarm Limits	warning below 5.0 warning above 15.0
Channel 3 Name	H2S - Hydrogen Sulfide Pit
Channel 3 Status	OK
Channel 3 Level	0.400 PPM
Channel 3 Alarm Limits	warning 100 alarm 200
Channel 4 Name	H2S - Hydrogen Sulfide Atmosphere
Channel 4 Status	OK
Channel 4 Level	0.510 PPM
Channel 4 Alarm Limits	warning 100 alarm 200

SOLUTION

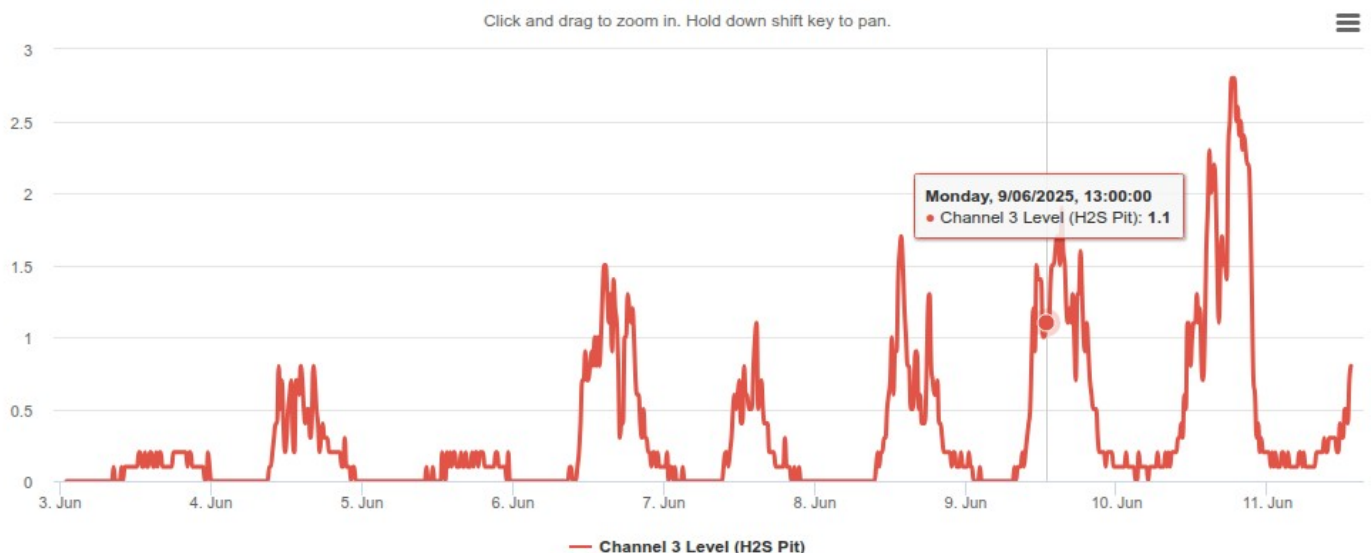
Our data harvester connects into the Crowcon control unit, taking constant gas values, alarm status and health condition, which is fed to our secure cloud-based servers.

After the data is processed, the Crowcon display, together with real-time current status and graphs showing historic trends is available on any web enabled device, with username and password protection.

Data is transferred through a tightly controlled, one way communication channel that prevents any access back to the Crowcon units being monitored.

BENEFITS

- Allows pre-emptive maintenance actions prior to exceeding safe gas levels.
- Reduces labour costs for continual manual checking gas values.
- Eliminate business disruption costs.
- Eliminates health risks from gas exposure



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