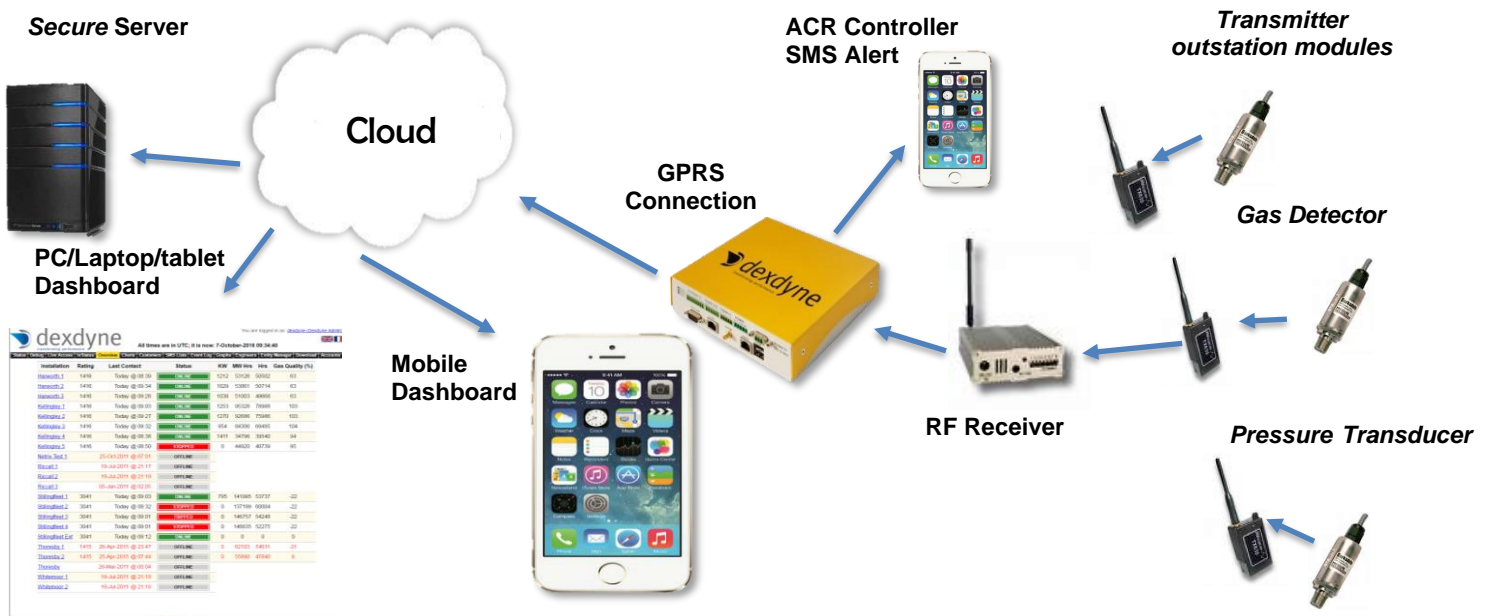# Gas Flare monitoring - Application note.

The challenge

Underground gas monitoring presents its own unique set of challenges. Sites that rely on methane drainage to supplement traditional fan-based ventilation systems.

However, monitoring these vents can prove difficult, as they are often located in areas without an electrical power source nearby and as such may not be monitored regularly. Commonly the first evidence that a methane drainage system may not be operating efficiently, or not operating at all, can be an increase in methane concentrations at a return air shaft - or worse - underground where the workforce is exposed to the risk of a methane explosion.

- Real-time status information displayed graphically on web pages.

- SMS/email alerts sent to multiple engineers when prescribed levels are reached.

- Consolidation of data from multiple outstations stored in a centralised SQL database ready for later analysis.

- Excel reports based on gathered data emailed directly to your devices - keeping you constantly informed.

Secure Server

Cloud

**ACR Controller
SMS Alert**

***Transmitter
outstation modules***

**GPRS
Connection**

Gas Detector

**PC/Laptop/tablet
Dashboard**

**Mobile
Dashboard**

RF Receiver

Pressure Transducer

The solution

By using wireless battery-powered transmitters, gas and pressure readings can be transmitted over large distances (10km+) to a central receiver - the **Remote Communications Terminal (RCT)**. RF receiver stations are able to facilitate up to 30 RF transmitter modules, and multiple **RCT** units are able to 'post' their collected data to a central SQL database, enabling the user to view the data via a user friendly on-line **Enterprise Dashboard** making Dexdyne's remote monitoring solution very scalable. Our **Enterprise Dashboard** can be accessed via any device; PC/Laptop/Tablet/Mobile phone.

Dexdyne's RCT is configured to send alarm messages via SMS to alert site engineers whenever a predefined alarm condition has been reached-such as excessive concentration of methane, pressure, oxygen etc. This same information can also be displayed via the online **Enterprise Dashboard** to any device; PC/laptop/tablet or smart phone.

The **Enterprise Dashboard** can also enable the appointed administrators to manage the SMS alerts service and to be able to download the captured data in CSV or EXCEL format. It is also possible to send this data automatically at regular interval to the chosen person(s) in the desired format.

Try our **LIVE** demonstration Username: demoUser Password: visitor