



# WHITE PAPER

## What's next for Connected Safety? Gas Safety Insights for Multi-Site Organisations

▶ The need for reliable gas safety insights on which to base the safety and security of your personnel, whilst streamlining processes and aiding fleet health is undeniably important for all organisation's, whether you are running a small or large operation. In this industry, where people's lives are on the line and workers are functioning within challenging environments, there really is no space for a slap dash approach to gas detection.



## **“Gathering insights across all sites will help organisations operating on a larger scale to ensure ongoing visibility, compliance, asset management and the smooth running of the day to day.”**

When it comes to multi-site organisations, the need for reliable data and a solid tool for the foundation of governance is even more crucial. Gathering insights across all sites will help organisations operating on a larger scale to ensure ongoing visibility, compliance, asset management and the smooth running of the day to day.

Utilising data solutions that can offer you a way in which to accurately record your data, to analyse the insights it offers and from there to act in ways that achieve the central objectives and goals of your team is the focus of this white paper.

We will explore the ways in which data solutions, such as Crowcon Connect, can reduce your costs, improve plant and personal safety, deliver compliance and boost your operations productivity and overall efficiency.





## Connected safety and data solutions

It's useful here to briefly touch upon what connected safety is, and the ways in which the specific data solution mentioned in this paper, Crowcon Connect, works in order to contextualise how multi-site organisations can benefit.

Connected safety as a phenomenon is underpinned by an Internet of Things (IoT) platform that connects workers, places and equipment. Connected safety follows the trend of wearable, connected technology that has pervaded every other avenue of our lives. From watches that track our heart rate and daily activity rates, to transport apps that connect us to our taxi driver - wearable, connected technology is everywhere.

It makes sense therefore that this trend has transferred into the gas detection sector where joined up thinking, connected devices and a central space in which to analyse the data gathered offers enhanced opportunities for safety, efficiency and overall compliance.

Crowcon Connect is a data solution for organisations with portable fleets that enables integration with existing devices. It allows gas detection device users to dock their unit at the end of a shift, irrespective of their location (on or off site) and feeds their gathered data seamlessly into the cloud. It is then displayed through easy to analyse dashboards and custom reports.

Using secure cloud technology Crowcon Connect sits on Microsoft's Azure™ cloud architecture and is compliant with cyber security requirements. The data solution can be adapted by the Crowcon team to meet the business needs of your organisation, and so comes with the flexibility to build hierarchies which reflect the internal structures you require.

With the aim of helping organisations improve their operational efficiency and safety compliance, the solution provides actionable insight.



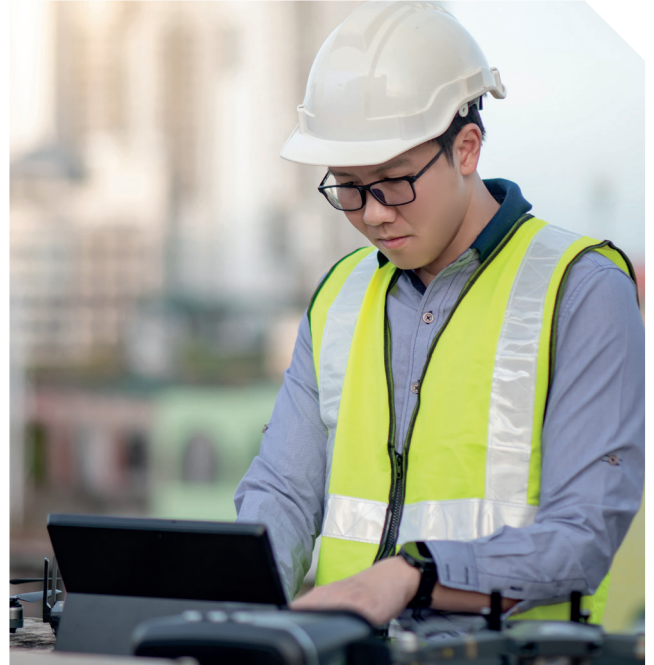
## Accurate risk determination

Implementing this type of solution provides multi-site organisations a way to ensure accurate risk determination, and provides peace of mind to those in the field that the data they are gathering will be fed back centrally, backed up and used to ensure ongoing safety and security.

The starting point of accurate risk determination requires the analysing of all gathered data. By collecting data from every detector within the fleet, safety solutions such as Crowcon Connect, ensure an immediate and consistent flow of accurate data is recorded across the entire fleet. When data is pulled into the portal after each shift, those assessing the data have the whole fleet's information to explore. This means instant visibility of exceptions and non-conformity to policies or compliance.

The team can immediately recognise alerts that have flagged for calibration and maintenance due dates, as well as have a way in which to keep track of detector locations, whilst minimising the risk of device loss.

Knowing that this information can be gathered, stored and analysed irrespective of whether workers are on or off site is key to ensuring accurate determination of site vulnerabilities or threats on a daily basis, and when required to take the action needed to halt immediate issues.





## Data connection on and off site

Large, multi-site organisations need to keep track of workers and the data they gather on a wider scale, both on and off site. Utilising connected data solutions means large organisations can overcome laborious manual recording processes and quickly understand the safety insights from all their employees regardless of their location - on site, off site or on the move.

If your employees work off site, Crowcon Connect provides capability for individuals to dock their detector in their charging station at the end of their shift, whether this is in their vehicle or at home. Using their smartphone or tablet data can be extracted through the app to upload it to the centrally accessible cloud utilising their mobile data or WiFi connection.

For employees working on site, of which there may be many within large facilities filled with on-site workers who require gas detectors, the data pool can also be increased to provide ongoing visibility. Whether detectors are used by the same person each day, or form part of a pool, fleet docking stations and a cloud solution mean you can maintain device-user association to avoid confusion. At the end of a shift, on-site employees can dock their portable detectors in charging units (which also act as data collection stations) and from there data is automatically extracted and sent to the central cloud (Crowcon Connect) with no user interaction required.





## **“With increased data availability comes reduced asset management problems, as well as enhanced gas safety insights.”**

### Increased data availability

As well as increasing the data available and connection capacities with employees across multiple sites, and even off-site, connected data solutions mean there is an increased data availability of specific areas, at varying times. Increased data availability can also illuminate specific processes that may be in need of attention and refinement to aid overall operational efficiency.

By customising the reports and the data they display and focus on, organisations can really drill down into the processes and activities within specific environments. The hierarchy and dashboard can be targeted across different areas for a closer inspection of the data surrounding daily activities, calibration needs, costings and compliance in specific areas.

With increased data availability comes reduced asset management problems, as well as enhanced gas safety insights. One of the more tiresome asset management problems that many organisations are keen to avoid is downtime-related incidents which occur if calibration scheduling is not managed or completed properly. Enhanced visibility of all the data across your sites and entire operations means that these issues can be preempted, as can the misplacement of devices.

Devices can often be lost or misplaced when there is no visibility as to where they are and who they are assigned to. By linking users to their gas detectors during an initial setup process you can pre-populate users and detectors to provide easy and quick links as to their latest whereabouts. You can also add and archive users and detectors as changes are required to create links between alarm events and user exposure.

By streamlining data availability and accessibility you can avoid time consuming inventory management manual processes, as well as reduce lengthy report compilation that would previously have taken an exhausting amount of effort. Therefore your time can be spent analysing and exploring the insights that matter, as opposed to sifting through endless data in an attempt to bring it into one place.





## Maximise on device “lifespan”

A longer battery life is particularly useful for operators working across multi-site environments. By remaining charged for longer gas detectors are fully functional and operational for use across a greater time span, for example the Crowcon T4 detector has a battery life of 18 hours. This allows workers to worry less about downtime and enables them to undertake their crucial detection work across a variety of environments as required, whilst gathering crucial data for central analysis without a hitch.

Under-charged devices can be disastrous on shift, and so ensuring their ongoing charge and maintenance in order for them to be ‘ready to go’ once workers start their shift is vital. Data safety solutions, like Crowcon Connect, solve these issues by prioritising devices with most charge and the most recent calibration when assigning them to operators, with “ready to go” RTG alerts, which can be useful in solving any historic maintenance scheduling issues.

As well as gaining increased efficiency with rapid assignments through having devices already charged and “ready to go” (RTG) at the start of shift, the connection between data solutions and portable detectors also holds many benefits in terms of gathering safety insights.

Fleetwide reporting tools can review calibration due dates in advance, as well as monitor efficiency levels to ensure you have the right number of detectors in your fleet, by reviewing detector utilisation on the dashboard.



## **“By enhancing your understanding of the data gathered, your team can be empowered with actionable insights ”**

### Increased understanding

Improving the understanding of your gas detection data is important for many different reasons. It can help you to analyse performance within specific areas, processes, environments and teams. It can also help increase performance understanding to maximise on maintenance of devices and procurement plans.

By enhancing your understanding of the data gathered, your team can be empowered with actionable insights and can utilise this information to act in a focused and intentional way. These insights offer powerful ways to improve efficiency, ensure compliance and improve safety - which are surely goals of all organisations in the gas detection sector.

Having visibility across your entire fleet allows you to get to grips with calibration scheduling and maintenance, and to further prevent downtime by reworking the existing schedules. By being provided with accurate records you are well equipped to prove fleet compliance, knowing that all the relevant information is securely stored in the cloud. You can also easily pinpoint and remedy the source of non-compliance issues.





## Improve compliance

Let's delve a little further into the ways in which harnessing the insights delivered by your gas safety and compliance insight solution can ensure compliance across your operations. Ensuring you are meeting not only internal rules and procedures, company policies, site rules and OSHA standards is very important. Utilising a system that makes this process somewhat easier is at the fore of many companies' agendas.

The risks of non-compliance are numerous, and can see organisations and individuals at threat of accumulating a plethora of damage and expense if regulations and guidelines are not adhered to properly.

Whilst safeguarding your staff to avoid people getting hurt within challenging environments, safety insights can also help you to avoid reputational and environmental damage. Data solutions ensure workers have somebody watching over them

and therefore keep danger at a distance. Insights can protect workers from being vulnerable to longer-term threats, such as volatile organic compounds (VOC) exposure and also track workers across their multi-site operations. This can monitor their comings and goings across various locations, as well as illustrate where low-level gas readings are present across a worksite.

Data enables safety teams to proactively forecast exposure trends which can enhance their capacity to pass health and safety audits, and ensure they don't encounter rising inefficiency to implement corrective actions detailed in audits. Data solutions provide a preemptive and proactive approach to compliance which can transform the way in which organisations can operate across multiple sites and enable them to maximise operations with a comprehensive gas detection program.



**With 50 years experience in the field we are ideally placed to meet your needs, offer peace of mind to you and your team and offer advice and suggestions for effective and secure gas detection within your environment.**

## Increased fleet sustainability

By utilising the data produced by respective devices in a proactive fashion, organisations can support their sustainability goals. Data plays a vital role in safety and sustainability programs for a number of reasons.

It allows companies to adjust their practices based on fact, not theories or what-ifs that might run alongside manual reporting processes that take longer to deliver the vital statistics. From relevant and timely data, organisations can mitigate exposure threats in the future and strengthen safety programs and the overall safety culture environment.

Those within organisations in industries such as waste resource, oil and gas, power generation and more, play a key role in social and environmental responsibility and stewardship. From this perspective, ensuring compliance with climate-control regulations is a focus in most areas around the world. Having the information you need at your fingertips is a way in which to ensure you are effectively contributing to the wider environmental and climate related objectives of the

Data can be a useful way to monitor and report the metrics that contribute to these efforts, such as measuring gas capture rate or methane emissions across worksites. You can report these metrics to environmental or regulatory agencies, when appropriate, since this data is grounded in evidence. For some, this data forms part of their annual sustainability reports, in which they can show to stakeholders any improvements or contributions toward their environmental goals.

As well as contributing to wider environmental and climate related sustainability goals, the data gathered also helps manage general fleet sustainability by revealing bump testing frequency, timing of events, gas concentrations and trends and patterns. By analysing these carefully line managers can locate any growing issues and pinpoint areas needing improvement. Patterns in alarm data can also highlight issues with worker productivity and outline to a manager how they can support their team through additional worker training.





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## Intelligent maintenance plan to manage ongoing costs

A comprehensive gas safety and compliance insight solution, like Crowcon Connect, allows multi-site organisations to create intelligent maintenance plans. One integral element of this is the inbuilt calibration and maintenance records and flags functionality. With reports pulled in systematically with maintenance and calibration due dates, line managers are empowered to make better decisions around required scheduling.

Intelligent scheduling automatically reduces unnecessary downtime, as well as helps manage the budgeting requirements surrounding these events.

You can use the fleetwide visibility birds eye view perspective these types of data solutions offer and see fleet utilisation, alarm events and upcoming maintenance requirements in advance. Filters can also be applied during setup and deployment, or retrospectively, to review information by region, division or team with the ability to fast-track to the detail which again allows greater opportunities for intelligent planning from a maintenance and fleet health perspective.



## Enabling a birds-eye view proactive approach

This paper aims to illustrate the ways in which the correct usage of gas safety insights can empower multi-site organisations to implement a proactive approach to their operations, which in turn can transform and improve plant and personal safety, productivity and efficiency and simultaneously deliver compliance.

By following the record, act and analyse blueprint that Crowcon Connect facilitates, organisations can stay abreast of multi-site operations without feeling the strain or over-expenditure historically associated with manual processes.

For more information about your gas safety insights and data solutions needs please get in touch with a member of our team.

