WHITE PAPER

What's next for Connected Safety? Quick User Assignment

The relationship between users and their devices is incredibly important, specifically in a gas detection context where the need for reliable, timely data is imperative in order to allow for quick, proactive decision making in potentially dangerous situations.

This paper explores the requirements for quick user assignment within gas detection settings and illustrates the ways in which having 'connected' technology enables this to be possible. We will also delve deeper into the ways in which this technology modernises and takes the risk out of data compliance, provides accurate risk determination, reduces maintenance costs, maximises on a device's 'lifespan' and provides data to allow you to build a solid foundation through your business safety recording.

Firstly let's explore what connected safety is and why it is more important than ever before.

CROWCON
Detecting Gas Saving Lives

What is Connected Safety?

Connected safety relates to the societal trend of wearable connected technology that is now very much a normal part of our lives, from tracking our daily workouts and measuring our heart rates, to ordering a taxi. This way of gathering data has spread across a variety of industries from healthcare to transport and is now revolutionising the gas detection sector.

With provisional data from the Health & Safety Executive reporting a total of 142 workers being killed at work in Great Britain in 2020/21, an increase of 29 from the previous year, the need for connected safety solutions within the workplace is more vital than ever.

Utilising gas safety and compliance insight solutions within your workplace is an opportunity to boost plant and personal safety whilst proving compliance, reducing costs and ultimately improving productivity and efficiency. Utilising a flexible cloud data solution, such as Crowcon Connect, you can gather actionable insight from your detector fleet which you can then integrate with your existing detectors whilst raising levels of safety. Utilising a cloud-based software platform within gas detection contexts allows the worker to be fully linked with their workplace.

This modern technology provides near-time, data-driven insight that allows you to record, analyse and act more efficiently in the day to day situations that require it, to ultimately ensure your team, and those they work with, are safer and more secure at all times.

Crowcon Connect

With 50 years experience solely in the gas detection sector, Crowcon is focused on keeping workers safe at all times. Crowcon Connect continues this legacy by providing a gas safety and compliance insight solution that utilises a flexible cloud data service offering actionable insight from the client's detector fleet.

The solution collects data from every gas detector in the fleet, linking the user to the device whether it has the same user each day or is shared across a team or pool fleet. Data is automatically gathered and sent to the Crowcon Connect platform whenever a detector is charged. Manual data collection processes are removed with the purpose of improving operational efficiency and lessening down time.

By bringing together fleetwide information the solution also enables performance analysis and ease of proving compliance. By comprising all detector information in one place, irrespective of fleet size or location, exceptions are immediately visible and therefore understandable in real time. By utilising simple to operate dashboards and filtering tools the solution can allow users to make data-driven safety decisions from information that is directly relevant, without other noise at the click of a button.

The need to raise safety levels and keep businesses industry compliant has never been more necessary. Crowcon Connect tracks all calibration due dates and delivers the detail necessary for proactive scheduling and reducing downtime. By providing the required records to prove fleet compliance, as well as identify areas for improvement, the solution ensures that businesses can remain one step ahead of the curve and ensure continual evolution. Everything is recorded and accessible within the solution making it ideally located when required for audits.

Crowcon Connect has been designed with the aim of providing both the visibility and insights required for businesses to ensure their detectors can comply with regulations, improve efficiency across the board and most crucially, raise levels of safety. Utilising emerging technologies, the solution processes insights and protection for customers to boost operational efficiency whilst aiding fleet management duty of care by collecting data on Crowcon devices. With devices able to be shared across shifts and collect gas reading data, scheduled maintenance disruption can be minimised and peace of mind kept in tact.

What is the Internet of Things?

Connected safety solutions utilise an Internet of Things (IoT) platform that is designed to connect workers, environments and the equipment they use. This technology is key to improving worker safety, aiding compliance and smoothing processes and procedures relating to automation within gas detection contexts.

In order to fully understand the best solutions available to aid quick user assignment, it is important to get to grips with the technology behind connected safety offerings. This understanding will aid your ability to implement it within your business, whilst ensuring that your workers can not only access the devices they need efficiently, but also get the most from the insights that their combined device data can offer.

The Internet of Things describes the physical objects that are fitted with sensors, processing ability, software, and a range of technologies that connect and exchange data with other devices and systems over the Internet or communications networks.

As one would expect, it allows for a wider connection between worker, device and teams than ever before and is transformational in the way it can revolutionise gas detection processes and procedures.

"Your options span wired, bluetooth or a mix of both – which you choose is dependent on your processes and is something to discuss with your team and your provider to decide which is most suitable."

What's needed to establish a successful connected safety solution?

Three components create an efficient connected safety program. These are hardware, connectivity options, and management software. The hardware mentioned is obviously the gas detectors, of which the quick user assignment is of great importance. Without the relevant hardware and equipment a connected safety system is unable to work fully.

These devices monitor each personnel's immediate environment, and alarm when dangerous gas levels are exceeded. Alarms, faults and background gas readings are collated, to gather important data on a daily basis. The quick assignment solution utilises a bespoke modular racking system that enables existing charging components to be used with it, and can interact with existing RFID badges or worker ID barcodes, making set-up easier and intuitively familiar to use.

Ensuring the connectivity method is right for you and your team is another key choice when implementing this type of solution. In order to capture the data you will need to decide upon the correct data capture method. Your options span wired, bluetooth or a mix of both - which you choose is dependent on your processes and is something to discuss with your team and your provider to decide which is most suitable. As a rule of thumb, wireless is best for on-site applications with racks of (shared) devices, and wireless is suitable for mobile workers on the move who use the same devices every day. Get in touch if you need to discuss this more.

The third and final component of a connected safety solution is the live monitoring software which is key to providing entire site visibility. The first two elements offer workers and teams the tools to remain aware of gas hazards around them whilst connecting them to the cloud and other workers. Monitoring software brings the solution together by providing a zoom out view of alerts in near-time at a higher and central level. A customisable dashboard enables 'at a glance' viewing and reporting, while reports show the underlying details, enabling data driven safety decisions to be made quickly, with the most relevant data.

With this type of birds eye view of events and occurrences provided centrally, line managers are able to take appropriate action in seconds instead of waiting a long time for specific incident reports and those responsible for demonstrating compliance can now quickly prove it whenever required, without halting operations or resulting in more time on value adding activities.

Connected safety software also informs you when gas detectors are turned off, when a worker is within a dangerous environment for too long, and if instruments are out of compliance, for example, overdue calibration.

Linking workers with their devices - power in your hands

Ensuring individuals know where their devices are at all times sounds like a relatively obvious requirement, however it is not always a given within specific environments, depending on the size, location and nature of the space. Connected safety solutions offer visibility in a way that overcomes historic struggles that safety professionals have had to deal with for far too long.

Visibility issues, regulations to comply with and a range of safety protocols to meet, have meant that those working in gas detection have often struggled to remain on top of the goings on within their site, not to mention buying-in replacements for missing devices. The IoT technology has forged a new path forward which seamlessly links workers with their devices, and facilitates the monitoring of an entire site in real time, from low level actions to high level processes.

By empowering workers in this way they are given peace of mind as they go about their daily activities, and employers can breathe a sigh of relief knowing that their team can stay one step ahead of any potential dangers.

Switch-on history functionality provides reports that show the time devices were switched on, duration and what operators were assigned to the device, showing that all procedures are followed to ensure worker safety. Alarm events can also be highlighted within in-built dashboard and report features, which can help remind device users, as well as ensure the underlying details are easily accessible at the touch of a button. Automated notifications can be sent to line managers, again to ensure company-wide compliance and no important events are unnecessarily missed, to prove company procedures are followed as required.

"By enhancing your understanding of the data gathered, your team can be empowered with actionable insights "

Pre assignment of specific devices

Connected safety technology provides the opportunity to pre-assign users to their gas detectors too. During the initial setup, users and detectors can be pre-populated, as well as having the capacity to add and archive users and detectors as changes are required. This provides the all important link between alarm events and user exposure.

Ensuring that confusion is reduced when different devices are required is of paramount importance, and connected safety solutions provide pre-assignment functionality that facilitates this need. By pre-assigning devices to specific workers employers and line managers can ensure compliance of correct device usage at all times.

Ensuring your team and their devices are "ready to go"

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. Connected safety solutions like Crowcon Connect answer these issues by prioritising devices with most charge and most recent calibration when assigning them to operators, with "ready to go" RTG alerts, providing another opportunity to solve your maintenance scheduling issues.

This comprehensive system of connectivity, uses powerful fleetwide reporting tools to review calibration due dates in advance. There is also capacity for efficiency levels to be monitored to ensure you have the right number of detectors in your fleet, by reviewing detector utilisation on the dashboard.

Having had to previously rely on manual checks with workers and their devices prior and during their shift, connected solutions are a relief. After all, manual check-in processes do tell you when a worker changes their location and can be reassuring at hourly intervals, however as much can happen in 60 minutes, this worry is something that safety workers have had to deal with for far too long. Without full connectivity, teams can struggle to fully have peace of mind about their operations, as well as the individual and collective safety of those within it.

Fleet health - staying abreast of device calibration

Utilising connected safety to ensure fleet health is another way in which this type of technology can boost quick user assignment and further connect workers with their devices, to aid overall worker and site security.

Tracking all calibration due dates, as is done via Crowcon Connect, delivers the detail required for proactive scheduling and in turn reduces downtime. This provides the records needed to prove fleet compliance, as well as identifying areas for improvement. By ensuring everything is recorded, you can demonstrate compliance during audits in an easier, and more efficient manner.

We have spoken a lot about visibility so far, and this is of course incredibly important, however it is the next step on from this which is most important - the action. You need all of the information recorded and at your fingertips, this is step one, however once you have this information it is how you react that impacts worker and environment safety in a really valuable way. Connected safety ensures companies and their workers have everything they need to take the correct action efficiently. For example, as listed above, once device calibration is tracked you are in a better position to monitor fleet compliance, and ultimately prove it when audit time comes around. Another example would be, if a gas detector alerts your workers to a hazard and nobody acts, then the alert is seemingly void. Again if there are a variety of workers' personal gas detectors that go into alarm in the same place on site and nobody recognises the pattern, the alarms again are pointless. Also if there is an alarm for extended exposure over a shift (Time Weighted Average) and nobody responds then the functionality is not serving any real purpose.

Each of these situations illustrate the need for suitable training on how to use connected safety equipment, and insights gained, well.

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.

Instant recognition and inefficiency prevention

Having a system in place that allows for instant recognition of available devices not only aids asset management processes, but also helps prevent inefficiency and avoid downtime which is surely the aim when working in dangerous environments. Inefficiency can also mean excessive costs, and this can drip into the management of assets and cause many problems which all safety professionals are keen to avoid.

These issues can take the form of downtime incidents, which occur if calibration scheduling is not managed and completed properly. Another side effect of inefficient asset management can be the misplacement of devices, specifically when there is a lack of visibility as to where they are and who they are assigned to. Having to manually manage inventory is time consuming and full of bureaucratic processes which detract much needed time from the important job at hand, as does having to manually compile required reports which can be very time consuming to pull together.

One way in which connected safety solutions facilitate instant device recognition and help avoid inefficiency, is by presenting data from across the fleet on easy to interpret dashboards. At a glance users can see fleet utilisation, alarm events and upcoming maintenance requirements and can apply filters to review information by region, division or team with the ability to fast-track to the detail.

All this information gathered provides valuable data that not only allows you and your team to respond fast if an emergency should arise, but also to identify, resolve, and prevent safety issues that may crop up at a later date.

Limiting down time whilst being able to manage the calibration and service of devices is achievable with a connected safety solution that offers rapid visible inspections, as well as a space to manage all devices that are in one place across multiple device types in one station.

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

The need for proper training - avoiding human error

The need for connected safety to aid quick user assignment is hopefully at this point clear, however it is useful to reference the need to fully train the team using the solution to avoid human error related issues arising. Connected gas detection programs can run into issues if alerts are misunderstood. Gas monitors have alerts and alarms that vibrate, flash, and make noise to show varying issues. If a worker, who may be new to the role, doesn't fully understand the difference between a real alarm and a beep that shows a calibration or bump test is required, accidents could happen.

Another human related problem could arise if an operator disregards the insights presented to them. Those who may have been working in the sector for a long time and are struggling to come around to the connected way of working, could believe they know more than the data in the portal shows, and therefore be a hazard because of their mindset. Proper training is imperative to remind all safety workers that experience does not top the knowledge and alerts of the insights, nor their safety equipment.

Another way in which issues arise is if workers do not act on the alerts provided by the connected safety solution. A poorly trained or inattentive manager could miss crucial warning signs or not spot them early enough. Once full training has been undertaken you can make the most of the new technology implemented and fully improve safety across the working environment.

Final thoughts

Connecting workers with their devices ongoingly in a gas detection context, whilst ensuring quick user assignment in order to boost your overall safety excellence culture is understandably at the top of many businesses' agenda. It is crucial that safety teams are fully informed about the way in which connected safety can answer this issue and enhance, not only their workers day to day processes, but also provide visibility site-wide.

Implementing a connected safety programme offers a way for teams to rest a little easier that their fellow colleagues and the system they use has their back. As discussed, ensuring proper and robust training to your team end-to-end on how the connected safety system works is also vital to ensure that everyone remains safe.

For more information about connected safety solutions, quick user assignment, or to learn more about Crowcon Connect, get in touch with a member of our team.