



INFOSYS EMPLOYEE HEALTH AND SAFETY SOLUTION

Abstract

Ensuring employee health and safety against occupational hazards and human errors has always been a challenge at workplaces especially in mines, factories, etc. Today there is no single solution that accurately determines the number of workers in harm's way due to a safety breach, provides a reliable mode of communication, and ensures complete and effective evacuation.

This paper presents a point of view on the capabilities and experience of Infosys with Health & Safety that can help organizations adopt leading edge solutions, cut costs, and set a new standard in employee safety.

Current HSE scenario

Over the years, organizations have been striving to make the workplace safer by recognizing the hazards, minimizing the risks by thinking through tasks, and creating awareness among employees to keep themselves and their colleagues safe.

However, there still remains a large gap to be filled. There is many a situation that leaves the workers exposed. Lone workers and small field teams working over large

geographic areas with poor radio reception are a routine scenario in many mines, factories, construction sites, etc.

Current solutions, in addition to being unreasonably expensive, also cannot detect falls in remote areas. They do not provide an accurate way of determining the number of workers in harm's way due to a safety breach. The warning systems currently in use, like sirens and

loudspeakers, do not confirm if the warning has actually reached all the workers.

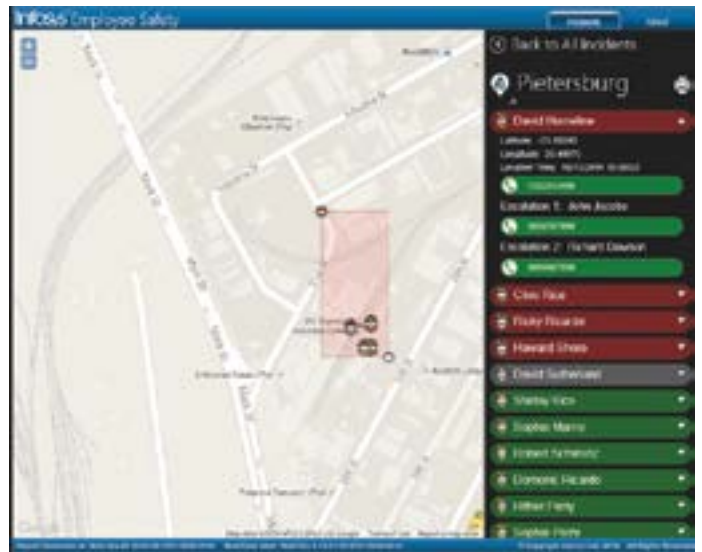
This presents us with the need to develop a complete solution that not only solves the above mentioned problems but also closes the loop in safety breach incidents with complete and confirmed evacuation.

Infosys Employee Health and Safety Solution

The Infosys Employee Health and Safety Solution is designed to be an effective Tracking and Emergency Communication

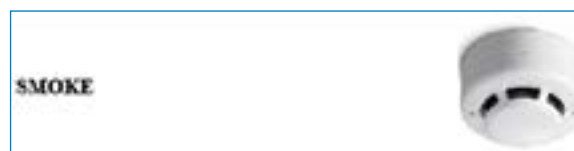
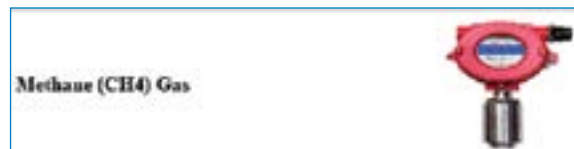
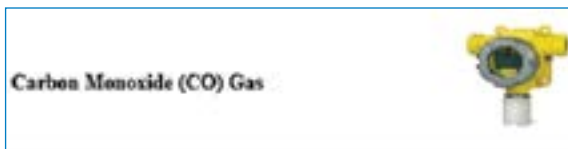
solution for field workers and miners, across a wide spectrum of connected and unconnected environments. It consists of:

A web GUI & Mobile App format that provides an unparalleled level of Command & Control



Industry grade sensors deployed through the work areas to detect safety breaches like fire, flood, hazardous gas emissions,

etc., that generate alerts based on readings and send them to the Console user / Control Room Operator.



TriLOC watch, worn by each worker, is GPS-enabled to provide the real-time location of workers. It has a dedicated button so the worker can send an SOS via call, text, and e-mail to a preconfigured number and e-mail address. Two-way communication through a SIM-channelled calling facility ensures that the control room operator/rescuer can reach every individual. In addition there is automatic fall detection, a sturdy build to withstand harsh conditions, and long life rechargeable battery of more than two days.



BlueBeaconTM is a beacon-based companion device that links the TriLOC watch to the RTMS solution for effective tracking indoors.

About the Author

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Nandita Nagar is a Technology Analyst for the Internet of Things Practice, Manufacturing Unit at Infosys. She has four years of experience in various projects in retail and supply chain industry. Her areas of interest include Internet of Things applications in supply chain and health & safety domain as well as wearable technology. She has worked on opportunities in developing the H&S solution for the mining industry, and supply chain automation in addition to supply chain extension projects for a multinational retail organization. She is currently pursuing a Master's Degree in Engineering Management from the Coventry University, UK, and holds a Bachelors in Biotechnology Engineering from VTU, Karnataka.

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