



# UK'S HAZARDOUS AREA RESPONSE TEAM (HART)

## The Challenge

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The UK's Hazardous Area Response Team needed a satellite network that provided first responders with high-speed connectivity to treat disaster victims onsite.

In the critical moments immediately following an emergency, information exchange is vital. Reliable, real-time access to voice, video and data services for first responders can be the difference between life and death in a situation when every second counts.

Thanks to a satellite communications network built by Excelerate Technology around ST Engineering iDirect's satellite-based IP platform, the UK's Hazardous Area Response Team (HART) is gaining an edge on emergency

response. The broadband network has equipped first responders with mobile connectivity, allowing them to respond more effectively and enhance patient care at major incidents.

## Immediate treatment utilizing a lifeline connection

HART trains its paramedics to respond to major disasters including terrorist events, natural disasters, chemical and biological incidents, or large-scale accidents of any kind. The duty of these specially trained responders is to reach patients as soon as possible and begin immediate treatment in the 'hot zone' – the dangerous center of the incident.

These teams must quickly and accurately transmit critical

information back to command centers, regardless of location or access to traditional communications support. To facilitate this, HART required a mobile solution capable of consistently providing the necessary bandwidth to support a full range of mission critical applications – within minutes of arriving at an incident scene.

## The Solution

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Excelerate Technology developed a solution together with partner ST Engineering iDirect. Our platform is relied on daily by many first responder agencies for secure satellite broadband connectivity completely independent of terrestrial infrastructure. With the platform, responders gain the ability to communicate seamlessly in densely populated urban areas where incidents may have damaged the existing infrastructure, or in remote and isolated locations where no infrastructure exists.

With ST Engineering iDirect's satellite-based IP communications platform providing the backbone of the network, Excelerate equipped Mobile Incident Response Vehicles (MIRV) with satellite connectivity. Each MIRV instantly provides voice, video and data access to expert personnel at other locations around the world for backup and support, and allows HART paramedics to manage treatment at the scene more efficiently.

From body-worn and vehicle-based camera systems, paramedics use the network to transmit live video of an incident scene for secure viewing by authorized personnel from any location. The network provides a cellular backhaul solution for Voice over IP (VoIP) and private GSM traffic between command centers and field teams. Data connectivity provides responders with a way to quickly and securely receive or transmit critical information.

"The iDirect satellite IP platform is central to the mobile broadband solution we developed for HART," said David Savage, CEO of Excelerate Technology. "We've found their technology to be ideal for mission critical situations where fast deployment, reliability, ease of use and efficient bandwidth utilization is essential.

The satellite routers are designed for easy deployment and combine a flexible satellite networking platform with advanced Group Quality of Service (QoS) and prioritization capabilities."

Not only can Excelerate prioritize voice, video and data traffic over the HART network, but with ST Engineering iDirect's state-of-the-art Group QoS, Excelerate can determine traffic prioritization across multiple vehicles, applications, remotes and sub-networks simultaneously, adding a new level of granularity for simpler network management.

## The Result

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The HART network was put to a test during a chemical contamination at a UK mall. When shoppers at Birmingham's Bullring shopping center complained of dizziness, nausea and difficulty breathing, the West Midlands Ambulance Service deployed HART to the scene.

With at least 50 shoppers and mall staff requiring treatment from a suspected petrochemical-based contamination, HART was able to remotely access medical consultation via the command MIRV's mobile broadband network and treat numerous victims at the scene for immediate discharge.

By facilitating medical assessment and treatment on the scene, HART helped prevent response teams and vehicles from becoming overwhelmed with hospital transport, and patients from incurring costly ambulance trips and hospital visits.

Based on successes like this, HART is expanding the program nationally. The organization has already tapped Excelerate to develop new fleets of MIRVs.

Today, emergency responders rely on satellite as part of their standard communications strategy. Thanks to Excelerate's mobile broadband solution developed on the iDirect platform, HART is now extending connectivity into the hot zone to respond faster and more effectively.