An advanced control room in action

From budget gaps to burnout, Fire and Rescue Service (FRS) staff are grappling with complex challenges. Here we illustrate the impact of these challenges, and the technology in place set to meet them.

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Role: Control Room Operator (CRO)

The challenges

The first point of contact within the fire service for members of the public, a CRO obtains and provides incident information to emergency responders. Last year, control room call volumes grew by 6.2%[1], whilst the impact of years of austerity measures and cuts has meant there is a decrease in the number of operators to take them. CROs are being asked to field information from an increasingly large range of sources - including text messages, webchats and social media messages - and many of the duties they're tasked with are still paper-based.

The impact

As CROs attempt to contextualise different streams of information, receiving, analysing and actioning them across numerous systems, their cognitive abilities are impacted. This can extend incident response times and mean they deliver an incomplete package of information to on-call firefighters. Manually completing administrative duties is time-consuming and error-prone, heightening the pressurised environment. For CROs, these duties - coupled with the unpredictable and often distressing nature of their work - can cause a rise in stress levels, absenteeism and burnout.

Role: Attending firefighters

The challenges

Firefighters on the ground are experiencing the challenges of the control room just as keenly. The fragmented information they receive - owing to a burgeoning number of emergency calls and a reduction in control room staff - could leave them attending an incident without a comprehensive understanding of what it entails.

Cuts have impacted firefighter crew numbers, seen stations close and fewer fire engines available to attend incidents[2]. Wildfires and floods owing to climbing temperatures[3] have further added to the demanding working conditions, and given the FRS an additional duty to manage. Yet the technology in place doesn't reflect the amount, as well as the scale, of the incidents they're tasked with.

The impact

With fewer team members, firefighters need to respond to incidents more efficiently than ever - a considerable undertaking which has only seen response times increase. Attending incidents in depleted numbers jeopardises the safety of responders and those they're assisting. Major incidents require a carefully coordinated response across the emergency services, and a lack of information from the control room, coupled with dated technology, means that this isn't possible. These conditions are further adding to poor retention in the profession, and for remaining colleagues, stress levels, absenteeism and burnout are rife.

How the FRS can overcome challenges

The following event demonstrates how a securely hosted control room solution can transform the handling of an emergency incident.

The incident

Late one evening the emergency services receive a call from a concerned motorist, who reports a potential collision on a busy A-road outside a built-up area. An influx of calls follows, relating to the same incident.

Advanced control room capabilities

The Integrated Communications Control System (ICCS) automatically records the callers' numbers - both mobile and fixed line

Their location is identified and passed to the Computer Aided Dispatch (CAD) system and available resources are allocated according to their approximate whereabouts and the incident type

Associated calls are recognised by their proximity to the incident, and tagged to the same incident

Incident handlers remotely monitor the body camera footage of the crash

How it transforms the incident handling

The CRO updates the incident with the information received, using the callers' numbers to recall further essential information from the database

Dispatch sends up-to-the-minute information to responding units while the system tracks their location and gives an estimated time of arrival

The CROs track and record any additional information related to the incident from other callers

The body camera footage allows the incident handlers to get a better picture of the emergency, they identify a liquid tanker and potential chemical spill at the scene, leading to early risk identification and evidence capture

Advanced control room capabilities

The incident priority is increased, and the update is immediately shared with all necessary parties automatically across notification technologies such as pagers, smartphones and Mobile Data Terminals (MDTs)

All incident data compiled within the system is tagged, timestamped and centrally uploaded, while post-incident details are recorded for statistical analysis and reporting

How it transforms the incident handling

The incident commander receives the updated status and manages the Common Operating Picture (COP), allowing them to coordinate an effective plan of action

The supervisor oversees all incident activity keeping all of the firefighters at the fireground and the public safe

Using this full view of the incident, they decide to deploy a drone to obtain a live feed of the incident

Displayed in the COP, this gives responders crucial information on the incident as it happens

The supervisor has sufficient situational awareness that they can take further action if required. Additionally, the data package for the incident is easily shareable with relevant partners such as police, Crown Prosecution Service (CPS) etc.

Benefits
to staff

→ The system automatically consigns all the up-to-date, relevant incident information to one manageable package - within one system. Without numerous channels and streams to manage, CROs can handle the incident more quickly and efficiently

→ Attending firefighters arrive at the emergency fully informed and exposed to fewer risks

→ Both firefighters and CROs are empowered to make faster, more informed decisions, which improves incident handling and contributes to better working conditions

→ Situational awareness is enhanced for all staff by the supervisor's ability to monitor the incident remotely, as well as the up-to-date shared COP

Beyond response management: benefits across the organisation

In addition to the benefits to those directly in control of an incident, this transformative technology has positive implications for management and procurement staff. For management, a well-orchestrated incident impacts response time, and less stressful working conditions contribute to enhanced working conditions for staff - improving retention and recruitment. This coordinated, cohesive response considerably improves the management of a major incident.

For procurement, costs are greatly reduced by deploying a cloud-based control room solution, and built on Evergreen IT, a technology ecosystem that is continuously changing and evolving, never becoming out-of-date or obsolete, it becomes a long term investment that can be easily scaled to meet future needs. FRS no longer need to maintain costly outdated control room technology, nor meet the high overheads involved in retaining IT staff to build and maintain it. The 'dark' control room, the expensive backup servers the control room is reliant on should the main one fail, can all be removed. Additionally, by utilising an FRS Hub where a hosted control room solution is shared by multiple fire and rescue services, costs can be further reduced and service delivery can be improved by enabling organisations to exchange best practices from one shared, centralised platform.

The cloud-hosted and shared control room solution is better prepared to handle major incidents, and as it's all part of one coordinated ecosystem, onboarding new features and capabilities, as well as supplementing it with further solutions easily, will keep training and recruitment costs to a minimum.
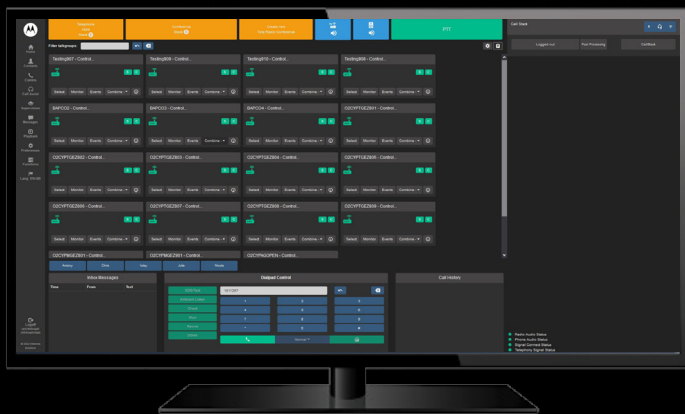
Ready to reap the benefits of improved incident management?

Get in touch with one of our emergency services experts to discuss our advanced control room solution today.

To learn more, visit: **motorolasolutions.com**

[1] 'Fire and rescue incident statistics: England, year ending June 2023', Gov.UK, 26.10.23, https://www.gov.uk/government/statistics/fire-and-rescue-incident-statistics-year-ending-june-2023/fire-and-rescue-incident-statistics-england-year-ending-june-2023

[2] Wrack, Matt, 'Firefighters run toward life-threatening danger. But the UK government has pushed even us to our limit' The Guardian, 30.01.23,

[3] Hesler, Brian, "Tackling climate change: a contemporary issue for modern firefighters", UK Fire Mag, 14.12.23, https://ukfiremag.co.uk/tackling-climate-change-a-contemporary-issue-for-modern-firefighters

[4] https://www.gov.scot/publications/benefits-of-cloud/pages/evergreen-it/#:~:text=The%20meaning%20of%20the%20term,of%2Ddate%20or%20obsolete

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