



# New innovations

Ian Thompson Bursary recipient, Mason Advisory's **Conner Fearn**, reports from the recent NENA conference, which took place in Texas

**T**he 2023 National Emergency Number Association (NENA) Conference, held at the Gaylord Resort in Grapevine, Texas, was a pivotal gathering for innovation and collaboration within the realm of emergency response. The event provided attendees with a unique glimpse into the evolving landscape of public safety while also affording opportunities to engage with innovative technologies and professionals who are central to the industry.

## **Emerging technologies, transformative shifts**

The 2023 NENA conference was not simply an educational platform, evolving into a space for networking and relationship-building among public safety professionals.

The conference brought together an array of attendees, including procurement authorities, suppliers, NENA board members, and control room operators, all converging to exchange insights, share best practice, and envision the future of emergency services. Conferences such as these give us the chance to forge connections that hold the potential to significantly shape the trajectory of emergency response.

The conference's spotlight on emerging technologies promised transformative shifts in the public safety landscape. Among the most compelling themes was the integration of artificial intelligence (AI) into various facets of emergency services.

Of significant interest was the evolution of control room solutions, with a focus on optimising operator workflows and enhancing information presentation. The aim is to streamline the operator's workspace by minimising the number of screens, thus fostering quicker decision-making and more effective incident management. These innovations hold the potential to expedite response times and enhance overall operational efficiency.

## **AI for non-emergency call handling**

AI's potential to influence non-emergency call management was a major theme throughout the conference. Through strategic keyword recognition, AI systems can guide callers to appropriate channels



## “The conference’s spotlight on emerging technologies promised shifts in the public safety landscape”

- **Efficient Data Retrieval.** The ability to search and cross-reference text data against voice recordings’ timestamps streamlines call analysis, saving operators crucial time.
- **Insightful Reporting.** Beyond incident classification, machine learning could uncover associations between call conversations and incident lifecycles.
- **Automated Incident Response.** AI-powered keyword recognition could generate contextual actions, automatically suggesting incident types and response strategies, aiding in swift dispatch.

Amazon’s AI-driven bot for non-emergency calls to the 101-line, meanwhile, showcased advanced keyword recognition. By detecting specific keywords, the AI can guide callers to appropriate resolutions or redirect them to alternative resources.

For instance, a caller seeking animal control assistance could be directed to a web portal or a dedicated phone line, without requiring operator intervention. This innovative use of AI has the potential to significantly optimise resource allocation and ensure rapid response to genuine emergencies.

### AI’s potential in video recognition

The conference’s purview extended beyond voice interactions, also encompassing the visual realm through AI-powered video recognition services. Of particular note was the application of this technology to detect potential fires via public CCTV cameras. I saw this at an NGA911 booth.

By analysing video feeds for signs of smoke, the system can promptly alert operators to potential fire incidents, enabling swift deployment of resources even before receiving a call. Given the prevalence of public CCTV cameras, especially in the UK, this technology bears immense potential to revolutionise early fire detection and response.

The NENA event offered a unique opportunity to gain insight from a visit to the Keller Police Department’s PSAP. This control room, small compared to what we are used to in the UK with just eight seats, shoulders the responsibility of emergency dispatch for fire, police and ambulance services across three neighbouring towns.

The population and geographical scale are a lot smaller than in the UK, and there are a lot more PSAPs for calls to route into. But these operators need to be ready to handle any call, emergency, or non-emergency, for any sector. The visit was an illuminating window into the operational strategies that set the American approach apart from its UK counterparts.

The operators at the Keller PSAP generously shared their experiences, shedding light on their utilisation of diverse mapping services and unique command and control software, tailored to manage a spectrum of emergency dispatches. An especially intriguing aspect was the emergency failover button, a simple yet effective solution that reroutes calls to a partnered PSAP, ensuring uninterrupted service during critical junctures.

based on their inquiry, effectively streamlining the handling of non-urgent calls. This intelligent approach not only reduces wait times for non-emergency callers but also ensures that emergency lines remain accessible for critical situations.

Imagine dialling 101 for a non-urgent matter. The AI could recognise the nature of the call and provide the caller with a solution for their request, or redirect them to, say, a web portal to report an incident, or the phone number for animal control, without a control operator having to take the call into the headset. This strategic redirection optimises response resources and ensures that those facing true emergencies receive the prompt attention they urgently need.

Motorola’s unveiling of speech recognition and transcription technologies also showcased an innovative approach to call management. All calls received at public safety answering points (PSAPs) are transcribed into live text data. A real-time dashboard allows supervisors to monitor ongoing calls without the need to listen in.

The application of this technology is multifaceted:

- **Enhanced Call Prioritisation.** Key phrases such as ‘gun’ or ‘knife’ are highlighted, alerting supervisors to high-priority calls requiring immediate attention and dispatch.

## Enhanced emergency response

A highlight of the conference was the interaction with the RapidSOS team, which is doing pioneering work in the realm of data-driven emergency response. Attendees were given demonstrations that highlighted the innovative approach employed to retrieve caller information and track locations.

RapidSOS discussed its solutions' ability to extract vital age and medical information from callers' smartphones upon call initiation. This insight empowers responders to make informed decisions before even engaging in conversation, expediting the decision-making process and facilitating the allocation of appropriate resources.

Additionally, the company's device-based location tracking – as opposed to a network-centric approach – ensures accurate and real-time location data, with the aim of contributing to swift response times and enhanced incident resolution.

In my opinion, what makes RapidSOS truly remarkable is its ability to maintain a connection with the caller's location data beyond call termination. This feature provides a historical record that remains accessible for a limited duration after the call concludes. Moreover, the technology taps into the broader Internet of Things ecosystem, leveraging data from wearable technology, connected cars and smart homes to offer a comprehensive understanding of the caller's surroundings and potential needs.

## Collective vision

The 2023 NENA Conference concluded, leaving – I believe – a resounding impact on the public safety community. It hosted public safety professionals from many backgrounds, as well as demonstrating innovative technologies and a shared commitment to enhancing emergency response, united for a common purpose.

From the enlightening visit to Keller Police Department's PSAP to the transformative capabilities of AI-powered technologies, the conference left attendees with a renewed resolve to usher in an era marked by preparedness, efficient incident resolution, and the safeguarding of lives and well-being.

Regarding the conference in particular, noteworthy guest speakers included CEO of Change Enthusiasm Global, Cassandra Worthy, who presented on 'Inclusive and resilient workplace culture and brave conversations'. CEO of Go Together Global, Shola Richards, meanwhile, offered insights on self-awareness, workplace culture and authenticity.

The thing which resonated most with me, however, was the unwavering focus on and respect for control room operators themselves, who are key actors in this industry. The speakers were brought in because of how they may be helpful for those operators, and they tailored their talks specifically for them.

In this regard, NENA continually showed its commitment to putting the control room at the heart of its objectives. This emphasis underscored its role in training and accrediting control room operators, and its overarching goal of industry-wide



improvement while ensuring control operators are not left behind in the journey towards advancement.

## A word of thanks

I'd like to finish by offering my heartfelt appreciation to British APCO, and the newly introduced Ian Thompson Bursary Award. This award is intended to be a transformative opportunity for new public safety professionals, which is what it has been for me since being a recipient of it. The award offers entry into the wider emergency response community, exposure to industry experts, and a front-row seat to technological advancements.

The Ian Thompson Bursary Award, established in memory of the much-respected and hugely missed former BAPCO CEO, has undoubtedly made a meaningful impact in supporting the growth of emerging professionals within emergency response. As a beneficiary of this award's inaugural year, I have personally experienced its power to foster connections and illuminate pathways for learning.

The insights I have gained from the NENA conference, the camaraderie formed with industry leaders and the exposure to cutting-edge technologies would not have been possible without the Ian Thompson Bursary Award. It has not only elevated my understanding of the emergency response landscape but has also fortified my commitment to contributing to the safety and well-being of our communities.

With hopes for its continued success and impact, I anticipate that the Ian Thompson Bursary Award will open such doors for countless individuals in the years to come. The support and recognition provided by British APCO via the award are truly commendable, and I am profoundly grateful for the chance to have participated in this exceptional experience. 🙏