Evacuation

Speaking *safety* into action

Ian Bridgewater, Managing Director at TOA Corporation (UK) Ltd, explains how voice evacuation systems enhance crowd safety through clear communication during emergencies and complex incidents

In an ideal world there would never be a need for voice alarm systems for evacuation. Utopia would, at no time, see the incidents we do that cause a threat to life. Unfortunately, this is sadly not the case in our world and there is an ever-increasing need for audio in public and commercial buildings to keep people safe during an incident or help direct them to areas where they can get help.

Whilst sounding a bell alerts attention it cannot give accurate instructions and often leads to delayed reaction. Delivering a clear message can lead to greater response and allows for better communication between the public and the incident management team.

Buildings are ever increasing in size and height giving emergency services many challenges in a crisis. The ability to be able to give direction to large crowds greatly enhances their capacity to manage events safely and securely with a much greater chance of success they will get everyone out or moved to a place of safety in a controlled manner.



Voice messages give clear direction for the movement of people away from an incident. It also gives the ability to deliver instructions in zones allowing safety control teams to dictate who they move and where they move them to.

For example, an airport may have several terminals in operation but there might be an incident in one that requires evacuation whilst the safest option for other areas is to lock down and contain passengers. Voice alarm systems allow for greater management of these situations and can prevent a mass exodus with little knowledge of whether you are being directed towards or away from the danger zone.

Voice evacuation legislation

So, let's discuss: what are the legal requirements and what actually is a voice alarm/evacuation system?

In basic terms voice alarm is a public address system that is linked to the fire alarm that is then triggered in the event of an emergency. With the option to use pre-recorded messages or live announcements, voice alarm systems allow for effective and clear communication. They can deliver everyday messages in zoned areas but in the event of an emergency these messages can be over-ridden to communicate important safety instructions.

In the UK voice alarm systems are regulated to British Standard BS5839-8: 2023: Fire detection and fire alarm systems for buildings – Design, installation, commissioning and maintenance of voice alarm systems code of practise. Installations must use independently certified EN-54 products, it is a legal requirement for power supplies, control and indicating equipment and speakers to be EN-54 certificated by a 3rd party approved body.

Voice alarm is divided into 5 categories under BS5839-8: 2023:

- VI: Fully automatic evacuation
- V2: Ability for live emergency messages
- V3: Ability for zonal live emergency messages
- V4: Manual controls
- V5: Specially engineered systems.

Each system should be individually designed to the end-users requirements to create a secure, easy to use, robust and reliable solution for communication and evacuation.

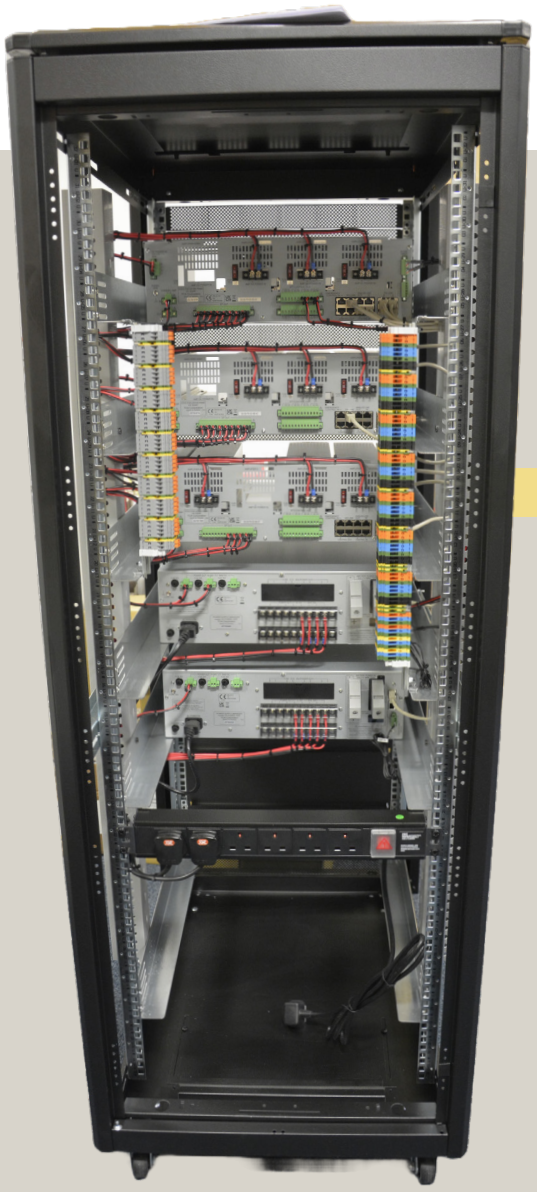
Industry challenges

A sector that we have seen a huge growth in interest for voice alarm systems to be installed is education. Pupil and staff safety is high on the agenda within the teaching world and we are seeing an increasing number of projects where the ability to lockdown is required. Multi-functional and multiple building super-sized high schools have an average of 950 pupils plus many staff.

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The ebb and flow of movement is constant as they change classes ▸





and the connection of all spaces to a central point is paramount to the school's evacuation policy. Sadly, schools have seen many incidences of violent behaviour in recent years so teachers need to be able to stay put and keep their pupils safe or know where and how they can move to a place of safety.

Communication with outside agencies is paramount in these situations so using a voice alarm system that can zone to classrooms and staff and is simple to use is a key consideration for educational institutions.

We have also seen an increase in landlords and management companies insisting on audio being connected to fire systems be it for large shopping complexes that require multiple systems for retail units and restaurants to multi complex transport hubs. This will become more an industry standard going forward as custom-designed systems allows greater flexibility and future expansion.

Martyn's Law

Much has been discussed about The Terrorism (Protection of Premises) Act or Martyn's Law which received Royal Assent on 3rd April 2025. This has set in motion the implementation period for an estimated 24 months before the Act comes into force. Martyn's Law will have a huge impact on venues and public places, how they manage safety and security and who takes responsibility for appropriate public protection procedures.

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The procedures specifically relate to evacuation, moving people to a safe place, lockdown procedures and the ability to communicate with individuals inside the premises from outside organisations offering emergency assistance. We think we will see a huge increase in demand for voice alarm systems that comply to both Martyn's Law and fire regulations offering a one-stop solution for communication and evacuation.

Technical excellence

TOA systems are designed for the individual projects and it is important that when we are advising installers and the end-user that they understand our principles for our life safety systems that they are:

1. A system that is multi-purpose, delivering daily communication and emergency announcements.
2. A system that, in the event of an incident, should be easy to trigger messages, either pre-recorded or live, to save valuable time.
3. Provide excellent intelligibility and clarity of sound.
4. A system that can connect emergency responders directly to the incident area and management points.
5. A system that provides completely integrated product solutions ensuring system robustness and the ability for expansion.

TOA Voice Alarm Systems can be used not only in the event of a fire, but for general announcement with scheduled class change and background music, but also for lockdown messages in the event of an intruder.

At TOA we take life safety very seriously. We never want to hear that one of our systems has not delivered in an emergency. Our technical team are here to help and support projects with their extensive knowledge of regulations coupled with their design capabilities and full training offer in 100V line and Voice Alarm Systems and Regulations.

For more information contact TOA Corporation (UK) Ltd on 01372 389799, visit www.toa.co.uk, or email technical@toa.co.uk