TERRORISM IN PUBLIC SPACES

Stephen Cooper *reveals how technology is being adopted to close a critical capability gap in keeping the public safe*

We live in an age of surging terror risks, with UK terror investigations hitting a record high in October last year. And tragically all too often terrorist plans aren't foiled; in 2017 alone, a huge 22,487 attacks took place, resulting in 18,475 civilian fatalities.

Adding to the challenges faced by already stretched authorities is a change in terrorist tactics. In recent years we've seen criminals exploit vulnerabilities in public places, such as music or sports venues, places of worship and the land side areas of airports with heart-breaking results. The Manchester Arena bombing and Bataclan attacks, for example, highlighted how vulnerable public spaces can be and the devastating impact such attacks can have. With terrorists actively encouraging attacks on crowds outside of secure areas and increasingly opting for soft targets that are easy to access and difficult to protect, securing public spaces presents a critical and urgent challenge.

Alongside the need for additional security to protect the lives of citizens, terrorist attacks also have severe economic ramifications, providing further impetus for governments and venue owners to enhance security measures. According to new data, the UK recorded the biggest economic loss from terrorism out of all the nations in the EU between 2004 and 2016, with attacks costing the country an estimated £38.3 billion in GDP growth. And it is not alone: after a number of attacks, Turkey experienced a tourism crisis, suffering a loss of travel service revenue of around £6.2 billion last year, according to central bank data. The 28 EU member states as a whole, meanwhile, lost approximately £160 billion in GDP terms due to terrorist attacks.

> **AVOIDING DISRUPTION REMOVES A MAJOR HURDLE TO THE ADOPTION OF SCANNING SOLUTIONS**

Yet despite the severe and tragic ramifications of terrorism, once headlines subside following an attack, security fades from public consciousness, and can become deprioritised. In parallel, the public is keen to maintain a feeling of normality, and invasive security measures are likely to prove unpopular. As Colin Clarke, political scientist and counter-terror expert at the Rand Corporation notes: in transit systems daily commuters are unlikely to accept intensive airport-style screening procedures, despite the attacks on public transport.

People want the reassuring presence of proportionate security, but also want to go about their daily lives unimpeded. Authorities and venue owners are therefore not only tasked with finding ways of securing hard-to-protect areas, but also of implementing security measures that accommodate lifestyle and normality.

REASONS TO BE CHEERFUL

However, against this bleak backdrop, and despite the clear challenges, there is optimism. Among the distressing stories making headlines, and those highlighting failures in the security infrastructure currently in place – such as when a Delta passenger carried a firearm onto a US-bound flight in January – significant headway is being made. In particular, technological advancements are honing in on critical capability gaps in the current screening process, enabling a disruption-free extra layer of defence to be added to public safety areas.

Recognising the challenge facing authorities when looking to secure public spaces, organisations such as NATO and the US Department of Defence sought to instigate change. They therefore created working groups, research projects and provided funding to identify promising technologies and approaches, which can be applied to the problem in particular to address the threat of a suicide bombers in crowded places.

One of the recipients of NATO's funding – recognised for its ability to protect vulnerable crowded places from the risk of terrorist attack without causing delay to intensive people flow – is called Human Security Radar (HSR). HSR is the result of many years of work by specialists in the fields of radio physics, electronics and software engineering, and the consultation of leading security and counter-terrorism practitioners.

Unlike traditional security lanes outside venues and in airports, HSR is capable of screening up to 10,000 people per hour per unit. Highly efficient and undisruptive, the fully automatic walk-through system screens for threats in real time, while allowing the free flow of people. HSR can detect

Picture credit: Apstec Systems

Scanning technology offers reassurance with minimal impact on the general public

improvised explosive devices and firearms, perhaps better expressed as mass casualty threats, concealed under clothes and in body-worn backpacks, without the need to remove them. It also leverages centimetre wave technology, enabling it to discriminate explosives from non-threatening materials.

MINIMISING DISRUPTION

Through supporting the free flow of people, HSR both minimises disruption for the public and helps to improve safety through reducing crowds; a RAND Corporation analysis of Los Angeles International Airport found that decreasing the wait time at baggage check-in from 15 minutes to one minute could reduce the number of deaths in a bomb attack by over half. With operators arguing that mass screenings would lead to unacceptable delays in transit hubs, for example, providing a disruption-free experience removes a major barrier to the widespread adoption of scanning solutions.

Successful pilots of HSR have taken place in several airports throughout the world, a globally renowned football club, one of the world's busiest entertainment venues, shopping centres, a petrochemical facility and places of worship. Most recently, it was announced that one of Turkey's largest airports, Esenboga International in Ankara, would be utilising HSR in the land side of its airports. Scanning its 40,000 passengers passing through the airport each day, the deployment of HSR will greatly improve security for nearly 15 million travellers each year.

Esenboga International's adoption of HSR marks a significant step forwards in improving security in airports. Following the devastating attacks in Ataturk Airport in Istanbul and Brussels Airport, the vulnerability of land side areas was clearly exposed, which has powered global interest in bolstering airport security. The deployment of HSR by Esenboga International highlights how technologies can be harnessed to tackle this challenge without negatively impacting the passenger experience.

Over the next few years the Gulf Region will be hosting many major events including the FIFA 2022 World Cup and the World Expo 2020, two of the world's largest. With the spotlight firmly on the Middle East, host countries will be looking for

greater assurance around public safety and extra layers of security in public areas. In line with this, a major international airport in the Gulf Region has just completed a 10-month-long pilot installation of HSR technology, reporting exceptionally positive results. Commenting on the deployment, the Assistant VP Security said: "HSR has been extensively tested in an operational environment and found to be uniquely well suited to the protection of the land side of airport terminals from terrorist attack. We believe this type of technology integrated into the terminal infrastructure with a redesigned land side security operation concept offers an effective and flexible solution that can be envisaged as the future of high throughput screening."

OTHER USES FOR SCANNING

While scanning technologies have to date focused on terrorist threats, there is scope for the technology to be applied to tackle other areas of social disruption, such as narcotics. Similar to terror attacks, headlines of deaths caused by drug misuse are a tragic and all too real occurrence. The use of class A drugs has a huge social and economic impact on the well-being of a country, not only to its inhabitants but also its reputation overseas. It's estimated that drug trafficking costs the UK alone an estimated £10.7 billion per year, with almost 213 tonnes of illegal drugs seized annually. In the face of these statistics, it's clear that additional approaches should be taken to mitigate the impact of drug crime.

There is real interest in technological solutions that are largely stand alone and which complement existing operations without placing further additional pressure on limited human resources. Specifically, there is considerable hope that scanning technology such as HSR can play a role in detecting and preventing narcotics being brought into countries in the first place – something that is potentially a massive step forwards in the fight against drugs.

In developing a truly layered approach to security, there is also the opportunity for physical security to be integrated with tracking software and facial recognition. This brings an added level of sophistication where the operational requirement clearly identifies the benefit of such integration. Whether facial recognition technology is used to facilitate access control or to identify people of interest, it makes a very powerful capability when combined with high throughput security screening technology.

Sadly, we're unable to envisage a significant change in the impact of terrorism in the future. The generally accepted view is that terrorism is here to stay and that some of the most devastating attacks experienced to date will be a feature of the terrorist threat for the foreseeable future. But, the adoption of technological advancements is making it possible to protect crowded places from mass casualty threats in a practical way that has never been available before. At long last there is an opportunity to find solutions to high footfall security screening scenarios, without disruption and while respecting the public's wish for normality.

THE UK RECORDED THE BIGGEST ECONOMIC LOSS FROM TERRORISM IN THE EU BETWEEN 2004 & 2016

In the UK's 2018 Autumn Budget an additional £160m was allocated to counter-terrorism police, – recognising the severity of the security landscape. With solutions already proven through deployment, this is the perfect time for authorities to strengthen their defences, and close a critical security gap ●

Stephen Cooper, OBE, is an Independent Security Advisor for Apstec Systems with a rich background in security, technology and its operational employment. Stephen has worked extensively in Homeland Security and was the Head of Security for the Olympic Park and Village during the London 2012 Games.

Anti riot police block the main entrance of Atatürk airport in Istanbul after a terrorist attack in 2016

Picture credit: Getty