

Border security beyond the checkpoint

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Critical challenges to border security

At more than 135 million arrivals a year, the growing number of individuals travelling to the UK through visas or seeking citizenship and asylum, means there is an increasing volume of data which must be captured, sorted and managed effectively in order to secure the country's border.

The risks to border security are changing as routes to the UK transform and expand. Meanwhile, new threats to remote infrastructure at the country's periphery are emerging, on and below the surface.

These joint challenges of increasing data and ever-changing risk aren't limited to Britain. They also apply to other countries around the world. So, how can nations successfully secure and manage their borders?

Four key areas stand out:

- The capture, enrichment, storage and successful **management of data**
- The management and identification of **multiple entry points**
- Leveraging data captured to enable successful and **effective decision making** and management of risks
- Utilising data feeds for wider cross-government and **organisational sharing**

The key theme across all these areas is data exploitation: being able to correctly process the volumes being captured and received from every entry point. Turning this data into useable and operational insights is essential for effective decision making and mitigating risks to border security.

Law enforcement agencies must find ways to appropriately manage the data they receive and ensure that they are capturing the correct and most useful data in order to effectively task and enable their officers. This will likely involve capturing data on individuals that are attempting to cross the border and evaluating the risk they pose to the country.

At BAE Systems Digital Intelligence, we provide products, services and expertise to respond to these challenges and secure the border.



Protecting major border crossings

Regular arrivals will apply for permission to travel to and enter a country through a travel authorisation such as a type of visa, ETA, settlement status or citizenship. Their application will usually include relevant biographic and biometric information, which is physically or digitally packaged before being processed, validated and stored by the government, as appropriate.

But for irregular arrivals, with often incorrect or no documentation, their immigration outcome will involve decisions made on a delicate balance of risk based on the information available to an immigration officer. There are hundreds of different systems, policies and processes involved in the management of that immigration data for both regular and irregular arrivals.

The challenge for both the UK Government and other governments around the world, is finding ways to look across all these systems and processes in order to identify who is entering the country legally and who is attempting to cross the border without authorisation.

At BAE Systems Digital Intelligence, we combine our experience in law enforcement with our expertise in data strategies, compliance and service design to help the government and its partners ensure that this data is processed securely and effectively.

- **Our consulting services** support the UK Government in understanding the biometric data it collects and the meta-data around its transferring, processing and storage in different government databases and systems. Our work supports governments in making informed operational decisions, improving operational and system efficiency and effectiveness, and enhancing overall user experience.



- **Our service development** and integration expertise is relied upon to manage hundreds of millions of travellers to the UK every year, whilst ensuring immigration officers can identify those crossing the border irregularly. We work with the UK Government and its partners to help them capture, process and manage data in order to know exactly who is crossing the border and safeguard those at risk from organised immigration crime. Our service management keeps the UK's critical national infrastructure responsible for border security on-line 24 hours a day, 365 days a year.



- **To ensure law enforcement** make best use of this data, we worked in partnership with the UK Government to build bespoke risk analytics systems, which combine data feeds to help decision makers spot risks, identify emergent suspicious patterns and understand the entire context to border crossings.



Securing remote border infrastructure

Maritime borders define much of the UK's territory, and the sea is critical for both national prosperity and defence. But the maritime environment presents existing and emerging challenges to UK border security: both on and beneath the surface.

We blend our maritime heritage and digital expertise to provide real-time tracking, monitoring and surveillance of remote coastline and subsea infrastructure: a protective net which supports timely intervention to potential threats and keeps maritime borders secure.

Our uncrewed assets can provide appropriate monitoring and surveillance of remote coastlines and vulnerable infrastructure with minimal maintenance and logistics. For example, the BAE Systems **Longreach70** combines uncrewed aviation platforms with a range of intelligence payloads to provide precision identification and reconnaissance capabilities.

Our uncrewed **PHASA-35** provides a cost-effective alternative to satellites or aircraft. Weighing just 150 kilograms and powered by the sun, it is capable of sustained operations monitoring the UK's periphery.

Below the surface, the BAE Systems Nautomate solution provides the control systems that integrate surface and sub-surface vehicles, including our **Herne autonomous underwater vehicle**. The Herne modular design can be adapted to monitor and protect critical sub-sea infrastructure located in remote regions, with our high-fidelity sensors and integration platforms – supported by human oversight – discriminating between legitimate surface and subsea craft from potential threats to borders and maritime infrastructure.



Looking to the future

The ongoing evolution of technology will continue to change how borders operate – impacting both the front-end traveller experience and back-end operations.

The challenge for both the UK Government and others is, what could the border of the future look like?

Well, given the recent successful trials of **border crossing without the use of passports**, it is expected that adaptable technologies and processes like these will continue to be rolled out. These technologies help make the border experience seamless – reducing delays, increasing efficiencies and helping with operational effectiveness.

There is a growing trend of countries adopting an 'invisible border' where gate systems and physical barriers are no longer required, as the matching process occurs behind the scenes. The expectation with these forward-looks is that the system automatically verifies an individual through an image taken as they pass through relevant points in the airport and matches it with the image they have already provided through their product (passport, visa etc). The work of the system would be closely matched to what currently happens, but without the need to pass through physical barriers. Some countries are already progressing well with developing these advancements, such as **Singapore**.

Such a system would significantly improve efficiencies and reduce friction for travellers by enabling them to cross the border seamlessly. It would be particularly impactful for cohorts such as people with disabilities and families travelling with young children, who sometimes have to wait in border control queues due to technical limitations of the e-gates. It would also dramatically ease the burden on border personnel – all while retaining security and control.

Of course, AI capabilities will be at the centre of any future border system, providing the speed and scale governments need to manage not only growing passenger volumes but also the increasing expectations of those passengers.

However, any future use of AI in border operations will need to operate within a robust and continually evolving legal and regulatory landscape. These capabilities must comply with data protection, privacy and human rights requirements, supported by clear governance and accountability frameworks. As the law develops, so too will the standards that apply to transparency, fairness and human oversight – ensuring that any solutions deployed remain lawful, proportionate and free from discriminatory bias.

Ultimately, border operations will continue to transform over the years to come. While the key requirements of assessing risk, detecting suspicious behaviour and delivering a positive passenger experience won't change, what will change are the technologies that are deployed to close capability gaps and enhance security.

References

- [How many people come to the UK each year \(including visitors\)? - GOV.UK](#)
- [UK net migration drops sharply to 204,000 in year to June - live updates - BBC News](#)
- [Long-term international migration, provisional - Office for National Statistics](#)
- [Summary of latest statistics - GOV.UK](#)
- [How many people are granted settlement or citizenship? - GOV.UK](#)
- [How many people come to the UK irregularly? - GOV.UK](#)
- [How many people come to the UK each year? - GOV.UK](#)
- [Search - Digital Marketplace](#)
- [BAE Systems partners with Home Office to help identify national security risks at the UK border](#)
- [Singapore announces passport-free biometric clearance at borders from 2024 — updated | Biometric Update](#)
- [No passports please! Airport trial of facial recognition a success](#)





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