

Accenture helps BAA and the UK Border Agency to automate Heathrow border clearance and achieve high performance e-Passport gates use biometrics to speed up travellers' experience



High performance. Delivered.



With growth in world air travel averaging five percent per year over the past 30 years,¹ the airline industry is aware more than most of the need to innovate to keep pace with change. For Heathrow airport, which handles the greatest number of international passengers in the world,² there is a need to expedite the movement of an increasing number of passengers in the context of finite resources.

Leading airport company BAA is involved in almost every aspect of the day-to-day running of six United Kingdom airports and a number of overseas airports. With a remit to work closely with travelers to give them an enjoyable passenger experience, BAA approached Accenture to undertake a trial to prove a secure, streamlined and workable business process for automated border crossing, before planning to implement the solution more broadly. The initial trial was undertaken at Stansted airport in 2008 and feedback indicated that 98 percent of travelers were happy to use the system again. As a result, BAA and the UK Border Agency agreed to work in partnership to introduce an automated border clearance system at London's Heathrow airport in August 2010.

How Accenture Helped

Accenture has an extensive team of more than 1,000 professionals dedicated to border management and public safety. They have worked extensively with border control and immigration agencies around the world, including US-VISIT and the UK Border Agency. The experience of these professionals

is complemented by that of our biometric technology specialists based in the Accenture Technology Labs, our dedicated research and development facility. The team collaborated with suppliers of the biometric-related products that form the backbone of our automated clearance solution. And they have implemented the world's largest biometric system, US-VISIT. Use of biometrics technology is not just about innovative technology; it can free up valuable and skilled resources to focus on intelligence-led border control and increasing the capacity of Heathrow's immigration halls.

"What impresses me is Accenture's commitment to working in partnership with the UK Border Agency. This has made the introduction of new technology into a busy workspace successful. Improving the customer experience of crossing the border without compromising security is vital to my business and Accenture have certainly helped me do that."

Graeme Kyle, Regional Director Heathrow, UK Border Agency

1. Source: MIT, Global Airline Industry Program

2. <http://www.flightmapping.com/news/coventry-airport/biggest-busiest-airports.asp>

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e-Passport gates at Terminal 4 in London's Heathrow airport

Working with BAA, Accenture has introduced banks of automated e-Passport gates at Heathrow Terminals 1, 4 and 5. These are being used in this busy airport by European Union passengers who are over the age of 18 and own an e-Passport— a combined paper and electronic passport containing biometric information that can be used to authenticate the identity of the traveler.

How it works

Integrating a number of different technologies, the border clearance system uses sensors to count how many people are present in the gate area, only allowing one passenger at a time and eliminating illegal tailgating. Each traveler places their e-Passport photo page in a passport reader and a screen guides the traveler through the process of passport authorization. Each passport undergoes visual and electronic security checks to verify its authenticity and the absence of tampering. The system captures and reads the passport while unlocking and reading its embedded biometric chip. Simultaneously, using

facial recognition and matching technology, the system begins capturing and matching the passenger's live face image to the image held within the passport chip. All of this information is collected as secure passenger information and sent to the UK Border Agency (UKBA) systems for real-time additional checks.

Once all information is gathered, matched and approved, the gate opens and the passenger is through the UK border control. An exceptions officer is on hand at the gates to resolve any difficulties or issues while gate "hosts" guide travelers through the process. Remarkably, the whole process takes around 20 seconds and means more of the many thousands of travelers each day can make safe and efficient passage through the airport.

Projections indicate that an average of 50 percent of European Union passengers with biometric passports will be using the gates by the middle of 2011, meaning the gates will potentially be used by up to 20 percent of all passengers arriving in the United

Kingdom in the near future. This kind of take-up could see two million passengers using the e-Passport gates in Terminals 1, 4 and 5 in the first year of operation.

"With Accenture's help we have been able to achieve a dramatic increase in swift and successful traveling experiences at Heathrow airport," said Stephen Challis, Head of Product Innovation at BAA. "Not only does the new system showcase Heathrow airport as a champion of new technologies within the travel industry, but also it improves how the UK Border Agency manage and control immigration across some of the busiest terminals in the world."

Accenture has introduced to London Heathrow a fully configurable automated border clearance solution with benefits such as:

- Ease of use for greater customer satisfaction: A faster and predictable border crossing using an intuitive and less intrusive process. The customized

and animated guide increases the passenger experience and greater efficiency for airport operators.

- **Intelligence-led border control:** The gates feed information to a monitoring station which only requires one immigration officer to monitor several gates. Border agents spend less time on processing low-risk passengers and doing low-value tasks, and a greater proportion of their time using their own skills and expertise, achieving greater operational effectiveness.
- **Enhanced security:** With technology taking the strain of fast and straightforward detection of fraud, intrusions and carrying out additional immigration checks, more routine passengers are not held up by travelers with more complex requirements.
- **Increased capacity:** By encouraging the high volume of European Union passengers away from the desks of the immigration officers, the e-Passport gates help increase the capacity for those officers to handle non-European Union nationals entering the United Kingdom. As a result of the swift processing of European Union passengers, immigration halls can handle far higher volumes of passengers, improving the journeys of vast numbers of the traveling public.

The success of the e-Passport gates was only possible with the collaboration between Accenture, UK Border Agency, BAA and various suppliers. During these early days of live operations, Accenture has been on-site to support the UK Border Agency training, to help maintain momentum for e-Passport passengers and to handle any unforeseen issues as a result of regular use. All of this will help all parties achieve the goal of making the border clearance solution operational all day every day for each terminal.

Accenture teamed with a wide variety of suppliers across Europe to implement the border clearance solution working in an environment fraught with security considerations—for instance, Accenture

consultants without the required passes were required to be escorted around the terminals at all times.

By the middle of August 2010, the automated gates were delivered, tested and successfully operational: on time and under budget. In the first six months of operation, the 9 operational gates had processed more than 375,000 passengers.

"This opportunity enabled Accenture to bring industry, technical and leading edge biometrics expertise together to deliver an innovative solution. The solution is not just secure, but delivers greater business efficiency savings for UKBA and a better customer experience for BAA's passengers. It is a great example of a win-win engagement for us."

Rob Gibbs, Health & Public Service Senior Executive, Accenture.

High Performance Delivered

Combining people, processes and technology, Accenture helps define strategies for effective and secure border control, improve business processes, determine effective workforce reorganization or training and implement change management. In addition, we partner with organizations such as BAA and the UK Border Agency to go beyond their existing capabilities and harness new technologies in innovative ways. At present, additional gates are being considered for an enhanced solution that goes beyond face recognition; a "fast track," premium passenger service, not limited to European passengers, which will use fingerprint technology to process paying customers at the United Kingdom border in due course.

The automated border clearance system from Accenture is not simply a technology implementation but is an overall solution that brings together third-party software with Accenture's research and development skills in biometrics and our in-depth understanding of border management, immigration, customs and police organizations. We work at strategic levels to deploy the latest technology into live port environments.

Indeed, the automated border solution epitomizes the way Accenture applies innovative, state-of-the-art technologies and integrates them into an end-to-end solution that helps organizations achieve high performance.

Contact us

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About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with approximately 204,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US\$21.6 billion for the fiscal year ended Aug. 31, 2010. Its home page is www.accenture.com.

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