

# Making the difference

Matthew Finn reports on how IT is helping revolutionise airport security and improve customer satisfaction levels.

Security, from an air transport perspective, has been the focus of considerable attention for decades now and most, if not all, of the raft of new security measures introduced in recent times have had a negative impact on the passenger.

And sadly for airports these negative effects, which have only served to crank up the 'hassle factor' of flying to an all-time high, are most apparent on the ground in the terminal building.

Yet certain fundamental principles remain completely unchanged – passengers want to enjoy the travel experience and governments need accurate, quality data on passengers as early in the travel process and as far from their borders as possible.

Armed with this data and equipped with the right tools to conduct analysis and risk assessment, government agencies can play a vital role in improving passenger processing and, in so doing, simplify passenger travel.

We have heard much about the promise of biometric technologies which are fast-emerging as the preferred choice for identity management and reconciliation – particularly with regard to automated border clearance systems and registered traveller programmes.

For the air transport industry in general and the airport operator in particular, biometric technologies offer numerous opportunities to improve passenger processing, reduce wait times and, as a result, enhance the overall quality of the passenger journey.

And such claims are no longer purely theoretical as we now have a large body of evidence from biometric deployments around the world that both proves the theory and demonstrates the value these technologies can bring.

But despite these advances and despite the maturing and increasing deployment of biometric technologies, great care needs to be taken to get it right – as getting it wrong could have unimaginably dire consequences for the entire industry.

For the last seven years, SITA has been a staunch advocate of the Simplifying Passenger Travel (SPT) initiative led by IATA. Taking the principles of SPT into the marketplace, SITA has routinely talked about 'convergence' in a passenger screening context – the coming together of both biographic data elements, such as passport, visa and booking information, and biometric data elements, such as fingerprint, iris and facial images.

While the techniques associated with using both biographic and biometric data for border control and security purposes may be

inherently complex, the rationale underpinning the need for convergence is simple and straightforward – one set of data is not a replacement for the other, they are complementary.

Simply put, just by capturing the fingerprint of John Traveller and being able to reconcile his fingerprint image throughout his journey is not enough. Biometric data is particularly useful for identity management, providing additional confidence that John Traveller is indeed John Traveller.

However, what we don't know is who bought Mr Traveller's ticket or whether he is travelling alone. This is where biographic data comes into its own and provide an extremely valuable and complementary layer of information to drive the passenger screening process. And, once identified as low risk, this provides a range of facilitation benefits to enable John Traveller to proceed through security, clear the border, enjoy the services available at the airport and limit the likelihood of him being held up in a queue somewhere when he should be at the gate getting ready to board his flight.

In this context, biometric data tells you a little more about who a person is while biographic data tells you a little more about what they're doing.

Many in the industry would argue that the adoption of e-passports will deliver widespread benefits to all aviation stakeholders – particularly passengers. While this is a relatively true statement and one with which I agree, the reality is that many people don't have an e-passport yet and are not likely to have one for several years to come.

Naturally, adoption rates will vary across the different regions of the world. And for some countries that were comparatively quick to issue e-passports to their own nationals, the home grown percentage of passengers carrying e-passports containing digital photographs and/or biometric identifiers is much higher.

In these instances, the business case, or rather the cost/benefit analysis, for building an automated border clearance system is readily quantifiable. If 40% of passengers departing from a particular airport are holders of e-passports, there would arguably be a compelling business case to deploy biometric-based systems in that airport – whether for fast track access through security, access to the airport lounges or for automated border clearance – to expedite them through the queues and get them to the departure lounge (or the baggage hall) as quickly, efficiently and as cost-effectively as possible.



*Image courtesy of SITA.*

But the reality at the current time is that such orders of magnitude are the exception and not the rule. Indeed many believe that it will be another five years or more before the majority of travellers hold e-passports, which will therefore delay, or at least slow, the widespread adoption of biometric based systems for passengers.

So an interim solution needs to be found and we are already seeing instances of 'temporary solutions' in various forms in many countries throughout Europe, North America, the Middle East and Asia-Pacific.

One obvious choice is to provide a registered traveller-type programme where participants choose to enroll in a biometric-based scheme in return for certain facilitation benefits.

In the UK, nationals of many countries can enroll in the country's Iris Recognition Immigration System (IRIS) by having the biographic data on their passport recorded together with high-definition images of each iris. Upon arrival in the country, participants in IRIS can bypass the queues, go directly to the automated clearance system and proceed to the baggage hall in a matter of seconds.

In Holland, the Privium system uses iris recognition technology but with the data stored on a smartcard as opposed to a database as in the UK IRIS model. Again, participants can bypass the queues at both outbound and inbound immigration and benefit from using the automated clearance system.

Programmes such as Privium also offer participants additional benefits such as preferred parking places in the airport campus.

As just two examples, neither IRIS nor Privium require participants to have an e-passport.

Returning now to biographic data, it is worth stating that the main focus of government border control and security policies post-9/11 has concentrated on biographic data – Advance Passenger Information (API) and Passenger Name Record (PNR) data in particular.

In this regard, one simple fact to restate is that as a border control technique, Advance Passenger Information is nothing new as it has been around, at least on a voluntary basis, since the late 1980s.

What is new about API is that it has become mandatory in many countries since 9/11.

New laws have also been introduced in the 27-nation bloc of the European Union, requiring each member state to enact API legislation and build systems capable of receiving and processing API data.

Another 'new' dimension regarding Advance Passenger Information is that governments are now keen to move from the batch processing of an entire manifest post-departure, towards an interactive, real-time, passenger-by-passenger, pre-departure model that requires the real-time interchange of data between airline and government systems.

Commonly referred to as 'interactive API' or 'iAPI', such systems are already deployed in countries such as Australia, Bahrain, Kuwait and New Zealand, and this August, with the adoption of the US API Quick Query, or AQQ, itself a form of iAPI, we will increasingly see governments moving from post- to pre-departure screening systems.

And these systems offer enormous potential to yield facilitation benefits to passengers. Effectively, once a passenger has checked in at the departure airport in London, they have already been cleared through immigration at the arrival airport in, say, Auckland.

Importantly, in many of the debates surrounding the provision of passenger data to government agencies, privacy and data protection concerns are raised and become important pillars in the policy-development and decision-making process.

It is worth underlining that there are few, if any, privacy debates regarding the provision of Advance Passenger Information. For API is essentially 'passport data' – the information contained on the photo page of a passenger's passport that he or she would typically have to submit for inspection at several points throughout his or her journey and particularly so upon arrival in a foreign country for tourism and immigration purposes.

The real privacy debate centres on the richer and thus more sensitive set of data found in an airline reservation system. Commonly referred to as a Passenger Name Record, or PNR, data contained within this record



Image courtesy of SITA.

can include information about accompanying passengers, meal preference, seat allocation, credit card and/or payment data, travel agent identifiers, past and future flight segments etc.

Much has been reported in the trade and mainstream press regarding the legal wrangling between the US Government and the European Union in this regard. Indeed, the EU which now counts 27 member states and close to half a billion citizens, has some of the most impressive data privacy legislation in place anywhere in the world. But the debate has evolved and reasonable and proportionate compromises are being found.

Succinctly, when governments seek to enact PNR legislation, they should specify the number of data elements required (19 data elements have emerged as a de facto norm); the time(s) at which the data is required (for example 24 hours pre-departure and again on departure); and the method by which the data must be transferred (for instance 'pushed', not 'pulled').

Thereafter, the length of time that government can store the data and the purposes for which it can be used are matters to be dealt with by the relevant and competent authorities.

Proportionality is another important dimension to consider. Firstly, one needs to be acutely aware of the additional burden passenger data requirements put on an industry already in great difficulty. Mergers and consolidation are becoming common themes in the airline sector and many airlines operating today will, regrettably, not be operating tomorrow if the rising cost of fuel cannot be reversed.

In practical terms, taking PNR as an example, governments would do well to recognise that, in many instances a PNR is created once and not updated.

Passengers on a day-trip return between two capital cities in Europe, for example, may buy their tickets on-line via the airline website the day before travel, print out both sets of boarding passes (outward and return) and proceed to the airport the following day. In this instance, the PNR will remain unchanged. It is therefore of no benefit to the government agency requesting it, to receive the same PNR multiple times – for example 24 hours before the outward flight;

on departure of the outward flight; 24 hours before the return flight; and again on departure of the return flight.

In this example, the airline is paying four times to send the exact same data to the exact same entity.

Europe, for its part, is also seeking to implement EU-wide legislation regarding the provision of PNR data for law enforcement purposes with a draft proposal for an EU PNR Directive tabled by the EU's executive arm, the European Commission, in late 2007.

So what does all of this mean to passengers, airport operators and the industry in general?

In concrete terms, what it means is that developments on the biometric front, coupled with developments on the legislative front for the processing of biographic data will enable us to harmonise and streamline passenger processing operations – globally.

Our industry needs global standards. It is one of the most standardised industries in the world, with standards for ticketing, revenue accounting, boarding passes, travel documents, the dimensions of catering trolleys and universal load devices for baggage and cargo – to cite just a few examples of where global industry standards deliver global benefits.

Putting the passenger back in focus and giving them more control over his journey through self-service innovations such as web check-in, common use bag drop and automated border clearance is exactly the direction we need to be heading in as an industry.

Enabling our passengers to choose their seats at home, print out a boarding pass, and arrive at the airport ready to use a biometrically enabled self-service bag drop system or a biometric-based access control system to proceed through security, across the border and on to the departure lounge – and even on to the aircraft – are not science fictional views of the future. These are very real, pragmatic and readily achievable views of how the industry can work together for the mutual benefit of all stakeholders.

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