# Use of biometrics in airports is increasing and becoming more widespread, yet integration for seamless travel remains in the pilot phase

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We have been researching "smart airports" for the past few months, principally looking at self-service, automation, biometrics and digital identity.  Initially these technologies and approaches were being trialled and introduced to handle the increasing passenger volumes and help address the constraints evident in passenger processing.  This has now been turned on its head by Covid-19; the emphasis has shifted to touchless processes in an effort to reassure passengers that air travel is safe and to improve operational efficiency (allowing human resources to be reduced and focused on where they are most effective).

There are various organisations and moving parts in this space, primarily airport operators, airlines and government border agencies (although the lines of distinction between these groups can sometimes be a little blurred).  Aside from these automated and self-service solutions, a growing number of countries are capturing third country nationals' (TCNs) biometrics at manned stations as part of their border control mandates.  Biometrics are obviously used for border control in ABC e-gates and smart pods and kiosks (Nexus/Global Entry in North America is a good example and several countries in the Middle East and Asia have invested heavily with other examples increasingly found worldwide).  Most of these efforts serve domestic nationals of that country but this is starting to change with more agreements in place for use with countries deemed to be low risk or with high-volume travel corridors in place, much as the Schengen Agreement allows amongst the EU member states.  This is set to change with the EU's Entry-Exit Scheme (EES), set to go live in 2022, with TCNs having their biometrics captured upon first arrival at a kiosk, which could allow them to use designated e-gates upon departure on subsequent arrival(s).  In these instances, either an e-passport or other ID is the primary credential against which we are matched, and/or the passenger has to pre-enrol into the system, so biometrics are matched against a central record.  The same currently happens where large central databases are in use, as in a number of Asian countries and with the CBP/TSA in the US and for TCNs in the EU once the EES is up and running.

Where we currently see more of a match-on-device use case within airports is where a passenger has chosen to enrol, either via a mobile app or at a dedicated kiosk/station in the airport (a similar process to that for opening an account with a digital bank, i.e. a selfie and liveness check to compare biometrics with a trusted credential, typically a government issued identity document).  This allows biometrics to be used for touchless/seamless passage through the airport touchpoints, e.g. check-in, bag-drop, security, boarding gate.  In these instances, the data does not need to be checked against a central database.  Whilst implementation has been widespread across an airport/country in some cases, the majority are piecemeal and

used in selected areas.  Trials and proofs of concept are still starting, so it continues to be evaluated on the whole, with wider debate and consideration ongoing of how to integrate it in most countries.  Highlighting the evolution in the industry's focus, IATA's Fast Travel Program ceased its activities in 2019 to allow greater focus to be put into its One ID efforts, aiming to deliver a seamless (and touchless) passenger journey, all enabled by biometrics across the mentioned touchpoints.

Responsibility for data protection and handling, plus liability and cross-border sharing of data are all to be resolved – plus not all countries have the same requirements and regulations for passenger identity and also for data handling/sharing – and these are the biggest reasons we do not have wider implementation of biometrics and digital identity at this time.  Imagine the scenario where a passenger departs one country, connects in another country between two different airlines, and then lands in a third country, and you can see how complicated it might be.  Momentum is increasing and Covid has made it more attractive but it will take several years for agreement on a standardised approach and common systems and processes to be outlined between all the necessary parties for the One ID vision to become a widespread experience.

Note: Our new report entitled "The Seamless Passenger Journey in Smart Airports" will be published in April 2021, with contributions from over 40 organisations who were interviewed during the research phase.  It examines the roadmap and future potential for biometrics, digital identity and smart solutions for self-service, automation and traveller processing to improve the passenger experience, increase efficiency and build revenue streams for airport and airlines.

The report has been researched and produced by P.A.ID Strategies and Valour Consultancy.  For more information, please contact John Devlin, Principal Analyst + Founder of P.A.ID Strategies.


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