



Moving forward: Contactless solutions are rolling out at pace from check-in through to boarding.



Can't touch this

With the wider rollout of self-service passenger solutions already well underway at airports worldwide, Paul Sillers looks at the challenges and opportunities for regional hubs.

Self-service passenger processing at airports is evolving at pace, hurtling towards the implementation of touchless interfaces in an industry-wide effort to mitigate COVID-19 contagion, re-establish passenger confidence and reboot public inclination to fly again.

Policy shapers are actively endorsing this trajectory. The International Air Transport Association (IATA) and Airports Council International (ACI) joint initiative, NEXTT (New Experience Travel

Technologies), is a blueprint for a post-COVID-19 world where "passengers would be able to customise their travel journey prior to their arrival at the airport," using "advanced API integration... for a personalised, contactless experience from curb to gate".

In a similar vein, the International Civil Aviation Organization's (ICAO's) CART (Council Aviation Recovery Task Force) initiative states that "increased use of

advanced technologies is encouraged to facilitate contactless processing of passengers at various stages of their journey".

While biometrics is perceived as the silver bullet for galvanising stakeholders in a unified, best practice response to the pandemic (case in point: Star Alliance Biometrics, where the multi-airline grouping enables touchless transition through the airport checkpoints using secure facial recognition), other contact-free solutions are already permeating the new airport landscape.

MOBILE IS KEY

It's hardly surprising that the smartphone – the one node in the loop that the traveller doesn't mind touching



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NEXTT (New Experience Travel Technologies)

– is rapidly becoming the prime interface. Passengers are already accustomed to checking-in and boarding with their phones. Still, digital devices will now become the remote control for many more interactions at airports, according to a white paper recently published by SITA.

“We’ve invested a lot in mobile, and it’s the basis of our new platform,” Elbson Quadros, VP Latin American, SITA, told *Regional Gateway*. “We’re connecting

the passenger’s mobile to the entire infrastructure of the airport, using the SITA Flex platform. The passenger will be doing more and more interactions, not only to buy tickets or make some changes with the airline app but also to make changes to the airport journey with their mobile.”

SITA Flex harmonises with the company’s self-service Smart Path platform to enable passengers to interact with bag-drop, security screening, border

control, lounge access, retail, and wayfinding, as well as at boarding gates.

REMOTE AGENTS

For scenarios where check-in via mobile or kiosks cannot provide all the necessary interactions, Quadros says that SITA is “discussing with LATAM [the Chilean airline] a way to have a remote agent”. Instead of having staff at the check-in counter, “the passenger interacts [at the counter] through a computer screen with the agent”. SITA has “trialled it at regional airports,” and though “still at an initial stage, it could be another approach to avoid contact,” he says.

Other technologies materialising at airport concourses include voice and gesture control. Elenium Automation Chief Commercial Officer Ilya Gutlin says that the Australian company “came up with voice [control] that works

Self-service feasibility for regional airports

Case study: Puerto Montt Airport/LATAM



SITA’s self-service bag-drop technology offers a time-saving solution for passengers and staff at Puerto Montt Airport.

Chilean regional airport Puerto Montt has recently undergone a new self-service bag-drop implementation

spearheaded via a collaboration between carrier LATAM and SITA. This is an extension of the two companies’ rollout of

self-service bag-drops across major hubs in South America, but the challenge was to demonstrate the feasibility of the solution at a regional airport.

“We wanted to give passengers the freedom to do things quicker and have a shorter journey to the plane, so we’re investing in technology to have a seamless journey,” Elbson Quadros, VP Latin American, SITA, tells *Regional Gateway*.

“Small airports don’t have a large baggage injection and sorting infrastructure, but we’ve now demonstrated that it’s working very well and leveraging the benefits of low touch or no touch and speed for the person doing their own bag checking.”

LATAM has spoken on Chilean TV of the time-saving benefits and now has a programme in 2021 to expand to other smaller regional airports.



Case study: Elenium/Avalon Airport

Melbourne’s secondary airport has introduced a suite of check-in kiosks and bag-drops, designed and implemented by Elenium, which use head movements to navigate a cursor on the screen, enabling touchless interaction.

“From the point of view of identification, instead of putting your passport or an ID on a flatbed scanner, you’re actually able to show your passport or your ID to a camera,” explains Ilya Gutlin, Elenium’s Chief Commercial Officer.

The system compares the traveller’s face with the picture on the passport and the MRZ (Machine Readable Zone) on the passport and identifies and/or enrolls them.

“It would be able to identify, read and store for that transaction. So this way, you’re going through check-in or bag-drop in a touchless manner,” says Gutlin.

Elenium’s self-service solutions offer a seamless check-in and bag-drop experience at Avalon Airport.



Bag-drop and go: SITA’s Smart Path Bag-drop enables a low-touch airport experience.

in a loud background environment up to 80 decibels”.

Elenium’s system tracks the passenger’s lips and localises a directional microphone towards them, then uses an array of microphones to capture background noise and subtract it in order to isolate and capture the passenger’s voice commands. The company has also pioneered a kiosk design that follows the passenger’s head movements to navigate the menu: “Your head really becomes the cursor,” says Gutlin.

JUMP THE QUEUE

One item that passengers often find fiddly is bag tags. To bypass the need to queue up at the bag drop-off point, Norwegian company bagID has developed an electronic bag tag in collaboration with Telenor ASA. This enables travellers to check-in baggage and produce a bag tag using their smartphone. The reusable electronic bag tag contains sensors and a communication module based on Bluetooth, Narrowband and LTE CAT M technology. It uses an Electronic Paper

Display to exhibit the barcode and destination information.

At Departures, the passenger can head straight to the bag drop-off point and inject their bag into the system. Regional carrier Widerøe currently supports the tag, says bagID.

Longer-term solutions might even dispense with the bag tag altogether. Elenium’s Gutlin says that just as humans have biometrics for their faces, bags have their own individuality, defined by their colour, weight, size, scratches and stickers.

“If you’re able to take a picture of a bag from several different angles, and you’ve got a similar device in the destination airport, you could go through a bag-drop transaction without having a bag tag because the bag is identified on both sides.”

Gutlin says: “Tag-less is the way aviation is going to go. RFID has been around for decades but never really moved beyond Proof Of Concept, so why replace decades-old technology, like barcodes, with another old technology, RFID, that has its own problems? Why not look at what’s available now – computer vision,



Self-service solutions

sensors, imaging and AI?" However, Gutlin foresees that "tagless is more of a concept right now, that will unveil itself over the next five to seven years".

QUESTION OF COST

There are plenty of innovative self-service solutions out there, but the question is, can airports afford it, especially during these adverse economic times?

But Elenium's Gutlin says that with the latest self-service and touchless tech at airports, "the price level is not higher. It's probably lower than the previous technology". However, he notes that "the capital expenditure versus operational expenditure discussion is going to be a tough one because, in a regional airport, they're still paying the salaries of people doing the bag-tagging. When you put in

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a bag-drop machine, it will save time, but it's one of these you've got to invest in to save, and it's a difficult argument, especially at this point in time."

One way for smaller airports to address cost issues is through scaled cloud-based infrastructure.

"We've been working for a number of years on making all of our products cloud-centric. You can buy one [kiosk or bag-drop machine] or 1,001 and have the same benefits," says Tony Chapman,

Senior Director Product Management and Strategy at Collins Aerospace.

He highlights that the cloud is "one of the drivers to make the same systems available and affordable to the tier three airports". And because Collins Aerospace's systems are cloud-based, he says that "airlines and airports can use the same systems that passengers are used to in major airports, but without needing the capital infrastructure required to support it". ■



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