EQUIPMENT

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Jane's Airport Review

Self-boarding swings into action

Airports in the 21st century must cater for the travelling public's growing demand for self-service and a seamless journey through the terminal to the departure gate

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According to the 2014 SITA/ACI Airport IT Trends Survey, released at the ACI Airport Exchange in Paris on 5 November 2014, 86% of airports are intending to invest in self-service processes over the next three years.

Investment in assisted and fully automated self-bag drop systems is expected to rise by 2017, with 74% of airports set to invest in the former (compared with 38% in 2014).

Usage of self-service check-in kiosks is anticipated to grow - of the 106 senior IT executives surveyed, 37% said they would install more kiosks and 23% want to make kiosks available for other uses.

Because more passengers now carry a mobile device, 60% airports plan to invest in geolocation systems and 49% foresee adoption of near field communication (NFC) systems.

The survey also showed that 52% of airports intend to implement self-boarding gates by 2017 - yet this growing enthusiasm does not acknowledge the complications that are often associated with airport deployments. Often the customer - be it an airline or an airport operator - demands a bespoke approach from the manufacturer and systems integrator, to take into account a specific operating environment or business model.

Netherlands-based Boon Edam often encounter these issues. "Every airport has different approaches, needs and criteria," said Business Development Manager Bart Van der Steen. "If you look at the market right now... we see that airports and airlines are becoming more used to self-service at security and boarding. Increasingly they are seeing the benefits of it in operations and passenger experience."

Boon Edam has worked on self-service projects for the airport industry for some time - its latest development is the Airport Swinglane self-service gate for border control or boarding.

"We can tweak certain things in the lane to make sure that it fulfills specific requirements. In the end it's about listening to the customer. As a supplier we are working together with the airport and airline to deliver what they need and what they ask for. So listening to them is a very important thing," Van der Steen said.

"We have a unique design in how we build up a lane," he continued. "Our modular add-on makes it easier and more cost-efficient to replace outdated technology once the lanes are in use and to

integrate NFC, biometrics or virtually any other authorisation technology."

Ergonomics and the user interface are important aspects to Swinglane, as they help to determine how the lane is used and influence the passenger flow. "We build a customised solution for clients, working with them in close co-operation. Pricing and lead times therefore heavily depend on the specific requirements of the project. [The] general time to market after the requirements are finalised is about 10-12 weeks."

Swinglane was developed in co-operation with Lufthansa, after a competitive tender from the airline in 2010. Lufthansa was also involved in developing the product itself.

Several Swinglanes were installed in the security pre-screening area at Lyon St Exupéry Airport in France. Swinglane trials for security pre-screening and self-boarding have also been carried out at other international airports in Europe (such as Amsterdam Schiphol, Frankfurt and Vienna) and the United States (including Boston Logan, New York JFK and Orlando). Various airports and airlines in China have also evaluated the Swinglane - the SITA/ACI survey found that Chinese airports are keen on self-service passenger processing. Some 65% of Chinese airports have a major self-service programme in place, while a further 29% are running a self-service pilot project.

Airport Swinglane at Lyon St Exupéry. (Boon Edam)

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Van der Steen noted that airports and airlines want to put passengers in control of their journey through the airport. "As passenger volumes grow, more capacity is required," he said. "Therefore

more automation can improve both capacity and passenger experience."

However, airports must also strike a balance between security and passenger flow. "If you use a high-security portal you probably have maximum six people per minute going through," Van der Steen said, "[but] if you have to do all the different security steps you go down to four or five passengers per minute. You cannot do that at a regular passenger terminal."

Supporters of self-service security lanes argue the technology is able to retain security while improving throughput (a maximum 15 passenger per minute with Swinglane, for instance). Even so, throughput levels depend on how familiar passengers are with the self-service concept. Frequent travellers would be able to use Swinglane easily, and indeed they account for 80% of the passengers using the system. "You keep the flow up, and you enable the security level that is asked for," Van der Steen concluded. "You have to find the balance between security and the flow in any application, between what is acceptable for the user and security officers."