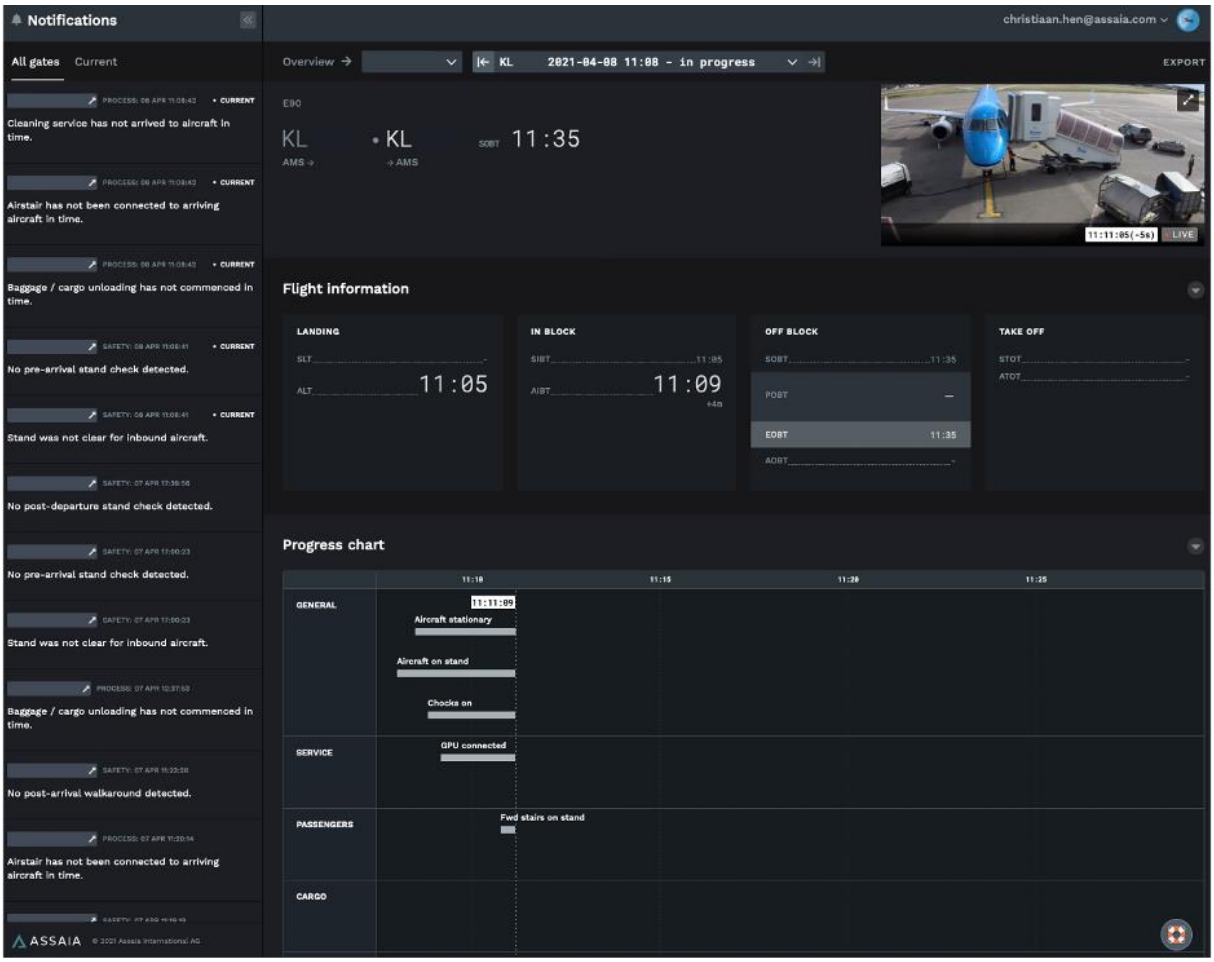
Zurich, Switzerland (July 05, 2021)

How to reduce turnaround times *by 12%* and boost airports' and airlines' revenue?

Even though it is obvious that shorter turnaround times are better, the question is how it can be achieved and what the value of shorter turn times is for airports and airlines.

Assaia International AG, an aviation solution provider, recently released a case study focused on the importance of turnaround control. The study proves that apron digitalization significantly reduces turnaround durations (by as much as 12%) and can generate an additional $11 million in revenues per year for airports and an additional $500 per flight for airlines.

One of the key components in this case study was the ability to receive real-time alerts for situations in which specific ground handling activities did not start on time. These alerts were created using real time aircraft turnaround data created with computer vision technology. The specific business rules for each turnaround activity were jointly defined and configured into the system (for example, the system would send an alert if the cleaning team had not been detected on the aircraft stand within 3 minutes after passenger offboarding had ended). Such real-time awareness about deviations from the turnaround plan allows operational staff to act directly and aims to minimise the impact on on-time performance.



Assaia Turnaround Control application with real-time alerts

The implementation of Assaia's turnaround control system showed that the turnaround duration decreased from an average of about 40 minutes to 35 minutes (more than 12% decrease), saving airports and airlines an extra 5 minutes per turn. So, what does it mean?

For airlines, time is money and as long as the aircraft is flying it is performing a money-generating task. While it is on the ground, it is not. The time gained can be used to compensate for delay minutes. The value of a delay minute is typically regarded to be around $100 per minute. This is a benefit of $500 per flight (assuming that each flight has 5 minutes of delay that can be compensated).

For an airport, the main benefit of shorter turnaround times is shorter stand occupancy which leads to higher stand utilization rates. The same logic applies as in the case of the aircraft utilization rates: not every minute reduction in stand occupancy can be used; however, the gains throughout the day over the entire airport can be used by gate planning optimization.

In a gate optimization exercise Assaia did for a large European hub airport, it was found that saving 5 minutes per turn, allows the same flight schedule to be facilitated with 3 fewer stands during the morning peak hours. This means that the airport has gained 3 additional, and highly valuable, aircraft stands. The value of this result can be calculated as the opportunity cost of building 3 additional stands.

Alternatively, the additional revenue these stands will generate for the airport can also be evaluated. Let's conservatively assume that each of the 3 stands will accommodate 1 flight per day during the airport's peak hour. This means 3 additional flights per day or 1,095 additional flights per year. Average aeronautical and commercial revenue (averaged between narrowbody and widebody flights) from a flight is around $10,000. Thus, it can be concluded that reducing the turnaround time by 5 minutes generates the airport from Assaia's case study example an additional $11 million per year.

Following mass vaccination, the aviation industry entered the recovery phase. However, with constantly growing passenger numbers, reduced number of personnel, and remaining COVID-related health and safety procedures it is challenging to operate an airport or an airline relying only on pre-pandemic knowledge and practices. Such a lack of quick adaptation to the new post-Covid world resulted in longer turnaround times and led to a skyrocketing number of flight delays, angry passengers, and financial loss. That is why the aviation industry needs to redesign itself in many aspects and start looking into supportive technologies if it wants to avoid the chaos and get its operations back under control.

Read the full case study here

About Assaia International AG: Assaia is an aviation software company headquartered in Switzerland, with an office in the United States. It provides an AI-based software suite that manages and optimizes airside processes for airports, airlines, and ground handlers. To learn more, visit assaia.com.

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