Executive summary

Gatwick Airport is the busiest single runway airport in the world, processing up to 945 flights per day. To compete on a global stage, the airport needs to provide the best passenger experience and ensure that the runway is used as efficiently as possible. Splunk Cloud allows Gatwick to unite data from multiple sources to better-run airport operations in order to, for example, speed passengers through security. Since deploying Splunk Cloud, Gatwick Airport has seen benefits including:

- Quicker passenger flow
- Improved collaboration across the airport
- Optimized resources to match passenger peaks

Why Splunk

Gatwick Airport handles more than 42 million passengers per year, boarding and disembarking 55 flights per hour from 52 different airlines. To make this happen, the airport must coordinate across multiple services, including airlines, ground handlers and Eurocontrol. Real-time visibility into the data generated across the airport is essential to turn planes around efficiently and optimize customer experience from curb-to-gate and back again.

Gatwick would need more than 60 dedicated servers to process multiple sets of data for these different departments and airlines in real time. This infrastructure requirement made a cloud solution the obvious choice. Splunk Cloud gives Gatwick Airport the capacity and flexibility to scale with demand. Now Gatwick ground operations can get live information on flights in the air and progression on the ground.

Improved troubleshooting drives efficiencies across the airport

Initially, the Gatwick IT team selected the Splunk platform to troubleshoot various systems. For example, root cause analysis enabled the IT team to reconfigure the whole PAX (passenger access) validation service, resulting in performance gains and incident reduction.
Using business data to build a stronger customer experience

Gatwick now monitors data from its own systems and social media activity to more accurately predict passenger flow ahead of time. This extends to additional data pulled from Network Rail and the Highways Agency, as road or rail disruption can mean more passengers arriving in a condensed timeframe. Factoring these real-time alerts into its operations allows Gatwick to dynamically change crews’ breaks, or call in more resources to meet demand and get passengers through to departures as quickly as possible. Gatwick also uses flight schedules to predict the volume of passengers coming through the airport.

Ninety-five percent of passengers through airport security in five minutes or less

Gatwick prides itself on delivering the best possible passenger experience, and a central focus is the airport’s target of getting 95 percent of passengers through main airport security in five minutes or less. Gatwick uses Splunk Cloud to meet and exceed this target by analyzing and optimizing each step of the passenger journey – from scanning a boarding pass to the speed at which the trays go through the X-ray.

Splunk Cloud improves collaboration across the airport

Aircraft turnaround is critical at any airport. The airport’s operations team now relies on a Splunk dashboard to visualize key airfield performance statistics. This enables the team to make changes in real time to keep everything running smoothly and deliver the best possible passenger experience.

“Splunk Cloud is a vital part of day-to-day operations at Gatwick Airport. By analyzing the data generated across the airfield in real time, we get a comprehensive understanding of passenger flow through the airport and ground operations, ensuring that our single runway is used as efficiently as possible. With Splunk we’ve moved from ‘how did we do?’ to ‘how are we doing?’ and can now also answer ‘how will we do?’”

Chris Howell, Head of Business Systems
Gatwick Airport

Airport Collaborative Decision Making (A-CDM), originally a joint venture between Airport Council International Europe, Eurocontrol and the Civil Air Navigation Services Organization, is an industry initiative driving airport partners to work more closely together and share data. With Splunk Cloud, Gatwick Airport now has a single, real-time view of performance and has improved collaboration with ground handlers, airlines and air traffic control, ultimately helping Gatwick to meet its A-CDM objectives.