Splunk Helps Operational Insight Take off at Gatwick Airport

Key Challenges

Gatwick Airport needed to make sense of huge amounts of uncorrelated data from disparate sources, which required a full, live overview of airport operations.

Key Results

By giving more teams at Gatwick access to data, Splunk has improved efficiency and lowered costs while empowering the team with Splunk Cloud's 24/7 support and an SLA that promises 100% uptime.



Industry: Travel and Transportation

Solutions: IT Operations, IoT

Efficiently serving 46 million annual passengers is no easy feat.

Yet that's exactly what Gatwick Airport does every year, making it the United Kingdom's second-busiest airport by total passenger traffic and the world's most efficient single-runway airport. Before making the decision to deploy the Splunk platform, Gatwick had a host of disparate performance monitoring tools that generated a great deal of data — yet were unable to make predictions or offer practical ways to improve operations.

Once installed, Splunk provided access to a huge amount of meaningful operations management data, while also enabling historical information to be easily extracted. According to Gatwick IT development specialists Alex Webber and Paul Bannister, "We're at the level of granularity now where we can go to any position on the security lane and completely understand its performance."

Beyond Airport Security

Gatwick is using Splunk to make sense of data from various connected devices deployed around the airport, such as cameras in the terminal areas that monitor queue length and timing. Other systems, such as Gatwick's airfield operational database or SCADA Baggage System, are also being pulled into Splunk to unify data on a single powerful platform. This data consolidation has enhanced contingency and resilience of Gatwick's operations; for example, the airport can now create alternative flight information screens if normal contact with the systems is lost.

When an investigation is necessary, Splunk invariably provides access to relevant data that has already been correlated. "It's all about that root cause analysis and understanding, 'How can we improve on yesterday's on-time performance? What were the reasons for the shortfalls?" say Webber and Bannister.

Data Driven Outcomes

#1

most efficient singlerunway airport in the world

95% of passengers through security in less than five minutes

46M passengers served every year through 945 daily air traffic movements

Overcoming Limitations

Gatwick competes against a number of other airports in the London area — but is somewhat inhibited by only having one runway, which operates up to 55 air traffic movements every hour. As a result, growth is highly dependent on increasing efficiency for this single runway. By ensuring more teams have access to live information, Splunk software has helped with the improvement of on-time performance and driven greater efficiencies, helping Gatwick overcome its limitations and meet its targets.

By giving more teams at Gatwick access to data, Splunk software is not only improving efficiency but also lowering costs — empowering the team with Splunk Cloud's 24/7 support and an SLA that promises 100% uptime. With these benefits at their fingertips, the team is bringing data to more decisions and actions across the airport, including using data to build a disaster recovery plan for Gatwick's Passenger Display System and providing readily accessible data on parking lot occupancy levels to optimize staff parking. Gatwick has also achieved a smoother, more pleasant passenger experience by using Splunk to streamline security processes, resulting in 95% of passengers making it through security in less than five minutes.

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We're at the level of granularity now where we can go to any position on the security lane and completely understand its performance. We can ask questions of the data: 'How can we improve on yesterday's ontime performance?' 'What were the reasons for the shortfalls?"

Alex Webber and Paul Bannister, IT Development Specialists, Gatwick Airport

Predictive Analytics in the Frame

While the Gatwick IT team initially chose Splunk to troubleshoot various systems, the team quickly realized that the platform could yield far more benefits. For example, root cause analysis enabled the IT team to reconfigure the whole PAX (passenger access) validation service, resulting in better performance and fewer incidents.

Looking ahead, Gatwick plans to use the Splunk Data-to-Everything Platform to dig deeper into firewall logs and other security-related data — as well as to predict future developments. For example, Webber and Bannister have already evaluated using Splunk technology for predictive queue-time analytics based on an analysis of previously collected data. The team also plans to use data from Splunk to better monitor key operational systems and services, as well as to derive insights from customer data, such as how passengers move throughout the airport, to continuously drive efficiency and improve the passenger experience.

Gatwick Airport may have initially used Splunk as a simple IT troubleshooting tool. But this premier airport has quickly discovered that by placing the Splunk platform at the heart of its operations, the sky's the limit.

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