

Simulating New Customer Services for Virgin Atlantic



Virgin Atlantic reorganises its check-in services using WITNESS simulation software from the Lanner Group

Background

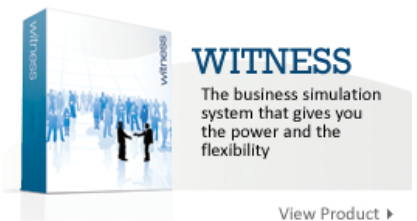
"Simulation shows us what is worth doing," says Mark Rappitt, Senior Business Consultant at Virgin Atlantic. "It's now a very successful part of our service to passengers."

Operating 28 wide-bodied aircraft on routes between 23 airports around the world, Virgin Atlantic is a successful and dynamic airline with a reputation for customer service and innovation. The diversity of destinations and routes creates a number of potential problems associated with different local working practices and culture that can impact on the smooth operation of check-in, departure and arrival services. The airline recognised that passengers would benefit from improvements in services and the introduction of new facilities that meet the needs of the modern business and leisure traveller.

Business process modelling and simulation is widely used in the airline industry and Virgin Atlantic had some experience of the benefits it can offer.

The airline started working with Lanner in December 1999, when it selected the WITNESS application as its strategic tool to help plan and implement new services. "The key to successful simulation is the ability to show information visually," says Mark Rappitt. "This is one of the strengths of the WITNESS application."

Related Product



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Variety of check-in facilities

One of Virgin Atlantic's first WITNESS projects involved streamlining business check-in at London Heathrow, Terminal Three. The airline operates a 'drive thru' check-in, where passengers simply drive to a special station and check in. This was designed to eliminate the time needed to visit the conventional desks in the departures building. As Virgin's operation out of Heathrow has grown, WITNESS has been used to provide BAA, which operates Heathrow, with information on the number of cars that would be using external roads to use the LHR Drive Thru'.

The airline then began looking at ways of reducing the burden on economy check-in facilities at Gatwick Airport in early 2000, as part of plans to introduce new routes to Las Vegas and San Francisco in the USA later that year. Simulation was used to predict the impact on existing check-in desks and identify times that queues would increase when the routes were launched. However, when the airline extended the assessment to include simulations of its check-in operations at other airports, the results showed a variety of effects caused by localised conditions. For example, a number of students pass through Newark Airport, New York when entering and leaving the US. These tend to have different types and amounts of baggage than other passengers and their check in times are not as consistent or predictable. In this example, check-in levels were harder to predict but did not always result in longer queues and the major issue was one of overall capacity.

"The model was based around a number of 'entities' which made it easier to change parameters and treat each flight individually," says Mark Rappitt. "This led to seeing the impact of some interesting innovations for the airline."

Results

The results of this economy class check-in simulation was used by Virgin Atlantic to build business cases for implementing new processes designed to streamline check-in at each airport. It was also used to communicate to staff, third party service providers and Airport Authorities the implications and impact of delaying the opening of check-in on queues and capacity as well as reliability of airport equipment and systems.

Identifying Passenger Profiles

Simulation and modelling of the economy class check-in enabled the airline to identify a series of passenger profiles and provided new insight into the operation of desks and their value to the business. For example, managers could see the impact of an extra desk on the length of queue and check in time. This is important because, apart from affecting passenger perceptions of service quality, there is a cost associated with keeping a desk open.

"Simulation has shown the value of check-in desks, which is very useful, although it was not the original reason for adopting it," says Mark Rappitt. "We see it as a way of meeting challenges, not dealing with problems."

The model helped to verify an idea that introducing a 'twilight' check at Gatwick for transatlantic flights would improve customer service and help balance the work load for check-in desk staff. Passengers scheduled on an early morning flight can now check in the night before, go to their hotel and simply turn up in time for boarding the next day. Many passengers appreciate the extra time this gives them and peak check in rates in the morning have been lowered.

Worldwide Solutions

WITNESS models have also been used to view the impact of various initiatives around the world. For example, holiday makers at Disney in Orlando can check in and leave their bags with Virgin Atlantic staff as they leave their hotels on the morning of their departure. This means they can enjoy a few more hours at the theme park without worrying about luggage and belongings before going directly to the airport for their flight. Virgin Atlantic passengers effectively have a longer holiday than people using other carriers and it frees airline staff at the airport to deal with conventional passengers. A similar scheme has also been introduced for holidaymakers in Barbados, St Lucia and Antigua. The 'Check-In, Chill Out' service allows passengers to spend more time on the beach before catching their flights home later in the day.

The airline intends to use WITNESS in the future to help design more facilities and justify ideas for customer service innovation and new flights.

"Simulation has proved to be a highly useful and successful component of Virgin Atlantic's business planning operation," says Mark Rappitt.