

The key to an improved airport experience

Leidos subsidiary BEONTRA provides integrated scenario planning and demand forecasting tools for airports worldwide. Their scenario planning tools are particularly interesting: they streamline the passenger experience through smart analysis and recommendations for airport decision makers, analysing all factors that may impact passenger flow - from check-in counters, through to security lanes and immigration desks—not only to forecast a normal day of operation but also to respond to larger than normal crowds and unanticipated scenarios, as Jana Skornicka, Sales Director for the BEONTRA suite, explains. She additionally highlights their next-generation software platform, BEONTRA Horizons, which will be presented for the first time at Passenger Terminal EXPO 2020 in Paris.



BEONTRA was founded in 2001 and operated under the Symbios name until 2012. The German-based company is a full subsidiary of Leidos, an American defence, aviation, information technology, and biomedical research group with more than 11 billion USD in revenues in 2019.

BEONTRA offers a full suite of integrated corporate planning solutions for

infrastructure providers enabling its clients to plan for the future, optimize processes and support operational, tactical and strategic business decisions covering all aspects of corporate life. Airports Company South Africa (ACSA), for example, recently deployed BEONTRA Scenario Planning to help optimise its airline routes and improve flight planning

across its network. The agreement supports route forecasting by enabling ACSA to assess the feasibility of new and improved routes, helping to attract more airlines to ACSA's airports and build the South African economy. "Particularly for smaller airports, it can be a challenge to attract airlines," Ms. Skornicka explains. "Our tools help them to present an attractive business case to specific carriers, taking account all factors, from the expected performance of the route up to a full connectivity analysis."

Scenario Planning is just one module in BEONTRA's product suite. Ms. Skornicka points out that they are uniquely positioned particularly with their forecasting tools as they are able to cover all time horizons from long-term forecasting up to on-the-day planning. More than 40 of the biggest airports worldwide use this BEONTRA technology, with JFK T4, in New York, as a notable example. Back in 2016, JFK IAT was having a tough time tracking and predicting pedestrian traffic inside the terminal. This is a common problem for airports worldwide, Ms. Skornicka points out. "It takes no time at all for congestion to build at ticket counters and bag drop areas, or lines to form at security checkpoints. If only a few flights arrive slightly delayed or early, that can create all sorts of management and staffing problems, which in turn negatively impact the passenger experience."

JFKIAT, the private company that operates Terminal 4 at JFK, leveraged BEONTRA's Operational Terminal Prediction (OTP) technology to change this frustrating dynamic. This cloud-based software system now monitors and forecasts traffic inside the busy New York terminal. Armed with predictive data, operations personnel can position staff and resources proactively to prevent backups

at traditional pinch points. It also shares information with resident airlines, as well as security and Immigration agencies to help keep traffic moving.

Instead of using static, cumbersome spreadsheets and charts with traffic information for a generic day, the BEONTRA software analyses data drawn from the airport operational database, airline schedule changes and other more dynamic online sources. This information is then combined with data about early and late aircraft arrivals, how long it takes passengers to move from one area of the terminal to another and the bottlenecks they might experience along the way. Results are displayed on a simple graph indicating precisely when wait times are likely to peak. Ms. Skornicka emphasises that the BEONTRA dashboard displays information not just for the current day but also the future. "It gives airports a better idea of the changing environment in real time."

The technology also has plenty of benefits for passengers. It can reduce lengthy wait times for check-in and security, which are generally caused by poor planning and insufficient staffing. By examining peak traffic times and learning from behaviour, airport operators using the software can share their compelling passenger demand and staffing predictions with everyone involved such as the airlines, security, customs and immigration, baggage handlers, retailers and restaurants.

BEONTRA continues to advance the technology and will launch its next-generation software platform, BEONTRA Horizons, at Passenger Terminal EXPO 2020 in Paris. Built from the ground up using the most up-to-date cloud tools and technologies, BEONTRA Horizons is positioned to continue to provide the best predictive analytics and forecasting

solutions for growing airports. Fully integrated machine learning, extensive automation of common tasks and an easy-to-use, modern user interface dramatically reduce the efforts for routine tasks and allow users at all levels to focus their time and attention on greater value generation. Integrated collaborative planning tools enable multiple users and stakeholders to create and utilise the results of many scenarios, eliminating redundant and outdated data sources. The embedded intelligence of the software learns from itself and its users, making suggestions based on changing results and underlying data, yet still without compromising the user flexibility and ability to retain full control. BEONTRA Horizons' Budget Forecasting is the first of the new solutions to be released. It embraces BEONTRA's three-pillar user experience design strategy:

less effort, same flexibility and more intelligence. Automatic data uploads, industry-tested machine learning algorithms to add missing load information and more powerful forecast tuning options elevate BEONTRA Horizons Budget Forecasting to meet the changing needs of forecasting tools for innovative airports.

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