**Lufthansa Systems**

**Business**
- IT service provider for the airline and transportation markets

**Challenge**
- Leading IT service provider needed a robust and stable database platform to underpin its airline planning and routing software that it sells to hundreds of airlines globally to ensure every flight is a safe one

**Solution**
- Actian Ingres database and Actian OpenROAD platform were chosen to support the company’s Lido/Flight-Planning application that is used by airlines to operate thousands of flights for millions of passengers

**Outcomes**
- Real-time availability of data
- High levels of uptime
- Reliability and stability
- Cost-effective licensing
- Backed up by vendor support

“The reasons why we originally chose Ingres and continue to rely on the database are numerous. It offers good functionality, high levels of reliability and stability, a cost-effective licensing model, and is backed up with excellent support. When we compare Ingres to other database technologies on the market, the Ingres database continues to be one of the best choices to power Lido/FlightPlanning.”

**Rudi Koffer**, senior database software architect, Lufthansa Systems Airlines Operations Solutions

Full service IT provider Lufthansa Systems relies on Actian Ingres and Actian OpenROAD to power its Lido/FlightPlanning solution which is used by hundreds of airlines to ensure correct flight planning and flight safety.

**Introduction**

When we take a flight, the majority of us are oblivious to the amount of planning and checks that take place in the background by the airlines to ensure that we have a safe and pleasant journey. While we are busy making ourselves comfortable in the cabin, behind the scenes the airlines are hard at work to understand how they must fly from our place of origin to our destination. Among many other things, airline dispatchers and pilots need to understand a plethora of information including what speeds they must fly and at what heights, what take-off weights are permissible, what routes need to be considered, what fees are due if they fly certain pathways and how much fuel they need to get from A to B. One example of a solution to help airlines do this is the market-leading system, Lido/FlightPlanning, offered and maintained by Lufthansa Systems.

As one of the world’s leading full service IT providers and industry specialists for the airline and aviation sector, Lufthansa Systems offers Lido/FlightPlanning as well as other airline solutions to some 300 national and international airlines across the world. The company is an expert in its field; it offers a modular range of products and services to...
manage all aspects of airline planning as well as a large team of navigation experts on the ground that collate information from a variety of sources, such as updated weather reports and air traffic information, in order to update airlines’ operations teams and pilots en route in real time.

**Flight and route planning software powered by Actian Ingres and Actian OpenROAD**

At Lufthansa Systems, global aviation data and support is distributed seamlessly using Actian database technology. A customer of Actian for some 23 years, the flight and route planning software, Lido/FlightPlanning, is built on Actian’s Ingres database technology.

“We have been using Ingres for some time in our business,” explains Rudi Koffer, senior database software architect at the Lufthansa Systems Airlines Operations Solutions division in Frankurt-Raunheim, Germany. “The combination of performance, speed, stability and price of Ingres as well as the great support from Actian continues to make the database platform a great piece of technology to build our flight and route planning software on.”

A central Ingres database serves as the repository of information that powers Lido/FlightPlanning. The data is available to the application in real-time, it is easy to use, secure and available 24 x 7. The company sells the application to airlines and transportation companies across the world and continues to run it; Lufthansa Systems installs the solution, maintains and updates it in real time to ensure that the airlines have the latest information at their finger tips when they need it. Every time there is a new piece of data or information about a new flight path, a new flight restriction, an airport closure or severe turbulence on the horizon, Lufthansa Systems feeds this via Lido/FlightPlanning to its customers, helping to ensure that airlines and pilots en route can get their passengers and their cargo safely to their destination. By calculating cost optimal flight routes, LidoFlight guarantees to generate millions of dollars in extra revenue for its customers annually.

And in an ever turbulent airline industry, airlines must ensure that their operations run as smoothly and cost-efficiently as possible. This is made possible thanks to the underlying Ingres database that powers Lido/FlightPlanning.

“Ingres is the underlying database that powers Lido/FlightPlanning,” ends Rudi Koffer. “The reasons why we originally chose Ingres and continue to rely on the database are numerous. It offers good functionality, high levels of reliability and stability, a cost-effective licensing model, and is backed up with excellent support. When we compare Ingres to other database technologies on the market, the Ingres database continues to be one of the best choices to power Lido/FlightPlanning. It’s reassuring to know that our solutions, that keep airlines safe, are backed up by a database software solution that has for so many years been playing in the ‘premier league’.”