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## Hot Topics

- ▶ Lufthansa Systems' PCI Compliance Engine protects credit card data with minimum effort
- ▶ Intelligent IT to reduce environmental impact of aviation

## News

- ▶ Cimber Sterling chooses Flight Ops solutions
- ▶ TUI Travel airlines opts for Lido products
- ▶ Condor expanded Lido/RouteManual contract

# 10 million

Crew planning is subject to complex legal and contractual regulations as well as logistical requirements. With NetLine/Crew, airlines can increase their productivity in this area by up to five percent, which results in savings of up to 10 million U.S. dollars a year for a medium-sized airline.

## Hot Topics

### **Lufthansa Systems' PCI Compliance Engine protects credit card data with minimum effort**

Credit card data is a precious resource. Today's airline industry would be unable to operate without credit cards as they serve as a convenient means of payment for ticket purchases and other transactions. On the other hand, fraud and data abuse are steadily growing, prompting the credit card industry to set strict data protection rules. The PCI Compliance Engine, presented recently by Lufthansa Systems, is a powerful tool to meet these requirements without a large investment. Launching customer Lufthansa has just completed the implementation for certain applications in the financial area.

Airlines and passengers rely on credit cards for many individual purposes, many of them not involving financial transactions. Check-in, seat reservation, frequent flyer identification, upgrades, lounge access and on-board purchases are just some of the areas in which credit cards are used. But with each transaction, credit card data may be abused. The Payment Card Industry Security Standards Council, an association of leading credit card companies, has therefore mandated that all entities processing credit card data need to comply with the Payment Card Industry Data Security Standard (PCI DSS). It requires all organizations using the data to fulfill a list of 380 individual rules and regulations. Failure to do so may result in fines or even the loss of the transaction license. Airlines, with their large number of financial and non-financial card transactions, are a key target group for this regulation, and no carrier can afford to be cut off from the use of credit cards. The PCI Compliance Engine from Lufthansa Systems offers a unique approach to fulfilling these requirements. The technology eliminates the card numbers within the affected applications and replaces them with artificial IDs. The Engine is the only data unit which isolates and stores the credit card numbers.

By shielding the affected applications they can be taken out of the scope of PCI DSS. As a consequence, the 380 requirements no longer apply, and the effort necessary to reach PCI DSS compliance is reduced significantly. An additional benefit for airlines is the fast implementation being achieved by a gradual and risk-minimizing procedure. Before its market launch, the PCI Compliance Engine had been certified to comply with the latest Payment Applications Best Practices (PABP) standard of card company Visa. The certification by independent auditors proves the high quality standards according to which the product had been developed. Airlines can rest assured that the solution protects themselves, passengers and card companies as it significantly reduces the risk of fraud. Lufthansa Systems has since presented the PCI Compliance Engine at various industry events. Feedback from the airline community was very encouraging as everyone is aware of the data security problem – and the high costs and effort of fulfilling all regulations of the PCI Standard in a traditional way. Launching customer Lufthansa is now using the PCI Compliance Engine for its revenue accounting processes.

### **Intelligent IT to reduce environmental impact of aviation**

#### **Lido/Flight from Lufthansa Systems cuts fuel costs and emissions**

For the first time a global industry voluntarily has agreed on a self-commitment for protecting the climate. IATA presented ambitious goals – an average of 1.5% better fuel efficiency annually to 2020 and half the 2005 carbon emissions by 2050. Since it will not be easy to meet these targets solutions to save fuel are high in demand. Combining IT expertise and profound knowledge about airline operations, Lufthansa Systems has developed its sophisticated flight planning solution Lido/Flight that has automated the flight planning and dispatching process. A flight from Frankfurt to Los Angeles, for instance, is not necessarily performed on the basis of shortest distance. More importantly, dispatchers must evaluate flight routes by factoring in anticipated weather conditions, such as high winds or zones affected by strong atmospheric turbulences and e.g. ATC-charges. Lido/Flight gives dispatchers a wide range of optimization options to define the most fuel- or cost-efficient routing.

By using Lido/Flight airlines can reduce their fuel consumption by up to five percent. Optimizing routes with Lido/Flight can save, for example, on a flight from Frankfurt to Los Angeles up to four tons of kerosene. This prevents more than 12 tons of CO<sub>2</sub> from being released into the atmosphere. The planning of the routes depends on Lufthansa Systems' own navigation database which contains worldwide aeronautical and other relevant data. It meets the most stringent requirements regarding precision and data integrity. It contains the departures, approach and arrival procedures of nearly 10.000 airports plus 11.000 airway segments and 129.000 waypoints.

Furthermore, flight planners and dispatchers need to adhere to current air traffic capacity and flow management rules. These highly complex rules, also known as Traffic Flow Restrictions (TFR), are set by air traffic control authorities in order to guarantee a smooth traffic flow while at the same time optimizing airspace capacity and safety. As an industry first, Lido/Flight TFR automatically considers even partly restricted airways, suggesting by-passes where legally permitted, for the most effective combination of airway segments. On certain flights this feature alone is able to save up to two percent of fuel. Lufthansa Systems also keeps track of current ATM developments and developed the Lido/Flight FreeFlight. This innovative solution enables airlines to benefit from free flight airspaces, where an airline is allowed to plan any route between A and B without being restricted by airways. This opens up almost unlimited options to calculate the most-efficient routing.

Yet it also increases the demand on flight planning systems dramatically. Lido/Flight FreeFlight significantly improves the fuel efficiency of every flight. Lufthansa Systems' first simulations of the economical impact of free flight trajectories in an "artificial Single European Sky" have shown fuel improvements of more than three percent. So it is hardly surprising that Lido/Flight is among the most successful products of the German airline IT specialist. The share of flights in Europe which are being dispatched with the help of Lido/Flight is approaching more than 40 percent.

## News

### **Cimber Sterling optimizes flight operations with IT from Lufthansa Systems**

The Danish airline Cimber Sterling is the latest European customer to opt for Lufthansa Systems' navigation charts (Lido/RouteManual) and Lido/TakeOff for take-off performance analysis. A five-year contract to this effect was signed recently. Both solutions from Lufthansa Systems' Airline Operations portfolio will help Cimber Sterling to lower costs through optimizing the navigation and performance of its flights. "Lufthansa Systems' in-depth process know-how was among the key factors for our decision in favour of Lido/RouteManual and Lido/TakeOff. We are looking forward to continue our longstanding and successful partnership," said Jacob Krogsgaard, CEO of Cimber Sterling. The airline is already using Lufthansa Systems' Lido/FMS database as well as the revenue management solution ProfitLine/Yield Rembrandt. The Lido/RouteManual charts are generated directly from the Lido navigation database, which contains worldwide aeronautical information as well as comprehensive geographical data. The value of Lido/RouteManual lies in the easy legibility and the clear structure of the individual charts. With a clear and easy-to-read design the charts are very user-friendly. This reduces the pilots' workload in the cockpit, especially during key flight situations such as take-off and landing. Lido/TakeOff calculates the optimal take-off data while taking all relevant factors – such as outside temperature, air pressure, runway length and conditions, and final aircraft take-off weight – into account. These calculations rely on the Lido Airport/Obstacle Data with respective Engine Out procedures (EOSIDs). Lido/TakeOff enables airlines to save fuel and to increase on-wing time of their engines.

### **TUI Travel airlines opt for Lufthansa Systems' aeronautical IT-solutions**

TUI Travel airlines Arkefly, Jet4you and Jetairfly will operate their flights with the Lido/RouteManual navigation charts and FMS (Flight Management System) data from Lufthansa Systems. They recently signed a five-year contract to this effect. In addition to the paper version of the charts, the airlines will also use the electronic version of the charts Lido/eRouteManual. The Lido/RouteManual contains take-off and landing procedures, airport and en-route charts. These charts are generated directly from the Lido navigation database, which includes worldwide aeronautical information and topographical data. The layout, colors and symbols are identical in the paper-based Lido/RouteManual and the electronic Lido/eRouteManual. The Lido navigation database is also the basis for Lufthansa Systems' Lido/FMS which includes all important route information including altitude and airport data for optimizing routes. The integrated use of both solutions enables the airlines to optimize their navigation. The Dutch carrier Arkefly operates flights to holiday destinations in Europe, Asia, Africa and the Caribbean. Jet4you is a Moroccan low-cost-carrier which links Moroccan cities with destinations in France, Italy, Spain, Belgium and Switzerland.

The Belgian airline Jetairfly flies mainly to Caribbean and Mediterranean destinations. The airlines are wholly-owned subsidiaries of TUI Travel PLC, an international leisure travel group headquartered in London which was founded in 2007.

### Condor flies with navigation charts from Lufthansa Systems

Lufthansa Systems today announced that it has expanded its successful cooperation with the German carrier Condor. The airline recently signed a five-year-contract to continue to use the navigation charts Lido/RouteManual from Lufthansa Systems. Condor already implemented the IT provider's resource management solution NetLine to optimize its planning and crew management. Lufthansa Systems' navigation charts are generated directly from its Lido navigation database. They include true-to-scale geographic information such as terrain features and rivers. The charts include airport taxiway charts, approach and takeoff charts, and a seamless worldwide route chart. The value of Lido/RouteManual lies in the easy legibility and the clear structure of the individual charts. This reduces the pilots' workload in the cockpit, especially during key flight situations such as take-off and landing. Condor carries nearly six million passengers per year and offers flights to holiday destinations in Europe, Asia, Africa and America. The airline belongs to the Thomas Cook Group, a leading international leisure travel group.

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### Meet Lufthansa Systems

If you would like to talk to one of our IT experts about any specific solution in detail, we would be happy to coordinate a meeting. You can find us at the following events:

<b>Name of Event</b>	<b>Date, Location</b>	<b>Solutions presented</b>
Singapore Airshow 2010	February 02 - 07, 2010 Singapore	Lido/Flight, Lido/FlightBag, Lido/RouteManual