



Lufthansa Leverages IT Assets with IONA

Customer Information

Customer:	Lufthansa
Headquarters:	Kelsterbach, Germany
Industry:	Transport/Logistics
Solution:	IONA Orbix

Customer Overview

Founded in 1926, Lufthansa is one of the world's largest and most prestigious airlines. It is Germany's national airline and with 400,000 shareholders, it is one of Germany's biggest public companies. It focuses on six business areas: passenger traffic, logistics, MRO, catering, leisure travel, and IT services.

Lufthansa's new Flight information system (FIS) is the Traffic And Ground Operations system (TANGO). TANGO contains, in a database, all Lufthansa passenger and cargo flight details. There are 95 distinct interfaces to TANGO throughout the Lufthansa organization. The security tool DESMON, which communicates with TANGO using IONA's Orbix, controls access to TANGO.

Lufthansa decided to replace its 25 year-old UNISYS FIS. Lufthansa Systems and Lufthansa Passage jointly came up with the TANGO solution. They decided to deploy it within five years and ensure the system lasted for at least another ten. It had to be deployed across 230 locations worldwide, and be capable of extension easily and cheaply to more locations. It needed to match and surpass the functionality of the previous FIS.

Lufthansa chose to work with IONA due to the results of a technology evaluation, and because of IONA's position as a world leader in solving complex integration challenges for the Global 2000. Lufthansa used Orbix to control all access to TANGO, and by streamlining and modernizing their infrastructure they significantly improved information availability and analysis resulting in reduced operating costs and improved customer service.

"IONA was the one that most accurately met our severe requirements. We also knew that IONA had a great track record on projects of this magnitude."

*Thomas Kullman
TANGO Project Manager
Lufthansa Systems*



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Challenge

The aim of TANGO was to replace the UNISYS OPS/FIS (Operation Control/Flight Information Systems) application, which stored and managed vast amounts of flight data, and was accessible by thousands of users all over the world. The new FIS needed to manage all information about flights and planes, their location and readiness for flying. TANGO had to be able to integrate with systems from many areas of Lufthansa's business; for example, passenger and cargo reservation systems. Lufthansa needed to guarantee data integrity for many applications that would query the TANGO system.

"Access to up-to-date, reliable flight information is crucial to all parts of our organization. We needed to implement a central communication structure between our business applications that would guarantee the integrity and security of our data. The large number of interfaces to our flight information system made this a serious challenge," said Thomas Kullmann, TANGO Project Manager at Lufthansa Systems.

Solution

One of the main internal uses of TANGO is the Lufthansa Power-Client, which is used as a front-end to the TANGO data by over 1,000 Lufthansa staff simultaneously worldwide. This is a Java client that uses Orbix to connect to the TANGO sever. Lufthansa Systems has also created a standalone security tool called DESMON. DESMON uses Orbix to ensure that all communication is completely secure. Lufthansa Systems has been able to reuse the DESMON security tool in other applications; for example, CHECK-IN.

"Planes don't make anyone any money sitting on the tarmac. With the improved information access that TANGO gives us, Lufthansa has been able to optimize its fleet operations in the most efficient way possible," said Mr. Kullmann.

Results

TANGO went live in phases, and for some time TANGO operated partly in parallel with the old system to guarantee complete functionality before the UNISYS FIS was completely removed. TANGO has improved information availability and analysis significantly for the Lufthansa organization.

TANGO has 95 interfaces to other applications, and it manages over 160,000 updates and 400,000 queries each day. There are over 15,000 potential users of TANGO all over the world. With TANGO, Lufthansa is able to offer extended services to its customers. Lufthansa's on-line booking system 'InfoFlyway' queries TANGO to retrieve flight information for users booking flights over the Internet. It handles approximately 100,000 hits every day. Internet booking is a service that Lufthansa has been able to extend using the integration capability that TANGO delivers

that previous host systems did not.

Lufthansa's Quick CheckIn-an automated flight check-in system located at 500 kiosks at major airports around the world-is another of TANGO's main customers. Lufthansa's passengers can check in to their flight without having to queue at service desks. The Quick CheckIn kiosks generate approximately 10,000 flight data requests from TANGO each day. This system reduces check-in times, and provides a very welcome service to Lufthansa passengers.

Lufthansa has also been able to use TANGO to host data for some of its Star Alliance partners. The data of Austrian Airline and British Midland is all stored by TANGO, so they can use it as a FIS too. This is a new business opportunity that Lufthansa has been able to realize with TANGO.

"Connecting the Infoflyway and the Quick CheckIn machines has been a great success, allowing us to deliver reliable and accurate information to our passengers. We also have interfaced many systems that have made our internal operations more efficient; for example, crew information portals and operation control centers. Orbix ensures that TANGO can be accessed by all our business systems. This makes integration easy and gives us endless opportunities for new products and services," said Mr Kullmann.

Why IONA

- Leverages existing and future IT assets: Orbix allows solutions to be developed rapidly and cost effectively, and can be deployed with Lufthansa's existing systems
- Reduced operating costs - reduced development cycles and easy customization allows Lufthansa to streamline systems at a minimal cost
- Increased customer service - the flexibility of Orbix makes it possible for Lufthansa to leverage existing services and make it available to customers with the access method of their choosing
- Proven heritage - IONA is a proven vendor with track record of providing resilient technology with enterprise qualities of service (QoS)

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