

AIR FRANCE



Air France Creates Flight Information Applications for the Future with IONA

Customer Information

Customer:	Air France
Headquarters:	Paris, France
Industry:	Transport/Logistics
Solution:	IONA Orbix

Customer Overview

Recipient of Aviation Week & Space Technology's "2006 Commercial Air Transport Laureate" and named "Airline of the Year for 2005" by Air Transport World, the Air France KLM group operates 2,370 daily flights out of Paris and Amsterdam to 247 destinations in 104 countries.

Flight information is the key to any airline's business - from airport and crew planning, transfer optimization, aircraft maintenance, international control organizations, and food and fuel logistics. Without this information, the efficiency of the airline decreases, which can negatively affect the service an airline can deliver to its customers. Airlines depend on their Flight Information System (FIS) for reliable flight data.

The oldest parts of Air France's FIS were designed initially in 1968, and Air France's business was limited by the legacy technology. As new technologies emerged, it became difficult to find the skills to maintain existing systems, and integrate them with other applications and new projects. It became very expensive to make changes to the old FIS, and Air France was losing out on business opportunities.

Air France decided that it needed a new FIS that would streamline and modernize its existing applications, and position them to be able to take advantage of emerging technologies. Air France chose IONA for this project because it had used IONA products several times previously and trusted IONA to meet all of its requirements.

"Reliable flight information is vital to almost all areas of our business. We depend on the quality of the information for our customer service and relationships with partner airlines. Orbix® has modernized our flight information systems, improving the accuracy and availability of our business data."

*Ghislain Colas des Francs
IT Manager (Flight Information Systems)
Air France*



Making Software Work Together™

Challenge

Air France wanted an FIS that would allow both internal and external applications to be built from a common platform. Air France's data was distributed over many disparate systems and databases, which increased the complexity of data maintenance. An airline needs to maintain vast quantities of information about its business, and inefficient data management can lead to inefficient business processes. Centralized data management was one of Air France's main criteria for its new FIS.

Today, the industry depends heavily on partnerships between airlines to provide extra services to its customers such as route sharing. These partnership arrangements are vital in such a fiercely contested market, and efficient data sharing is crucial to its success. Air France found that this was difficult with its old FIS, so the ability to expose its data was also a principal requirement.

"Our flight information system was over 30 years old. Not only was it becoming difficult to maintain, but we found that our business was becoming limited by our technology. With competition as fierce as it is in this industry, technology is only useful if it contributes to commercial success," said Mr. Colas des Francs.

Solution

The project was to design a new FIS. Air France decided early in the project that the best way to position its technology for future business opportunities and technological advances was to design an architecture that would allow for easy application development. So, instead of thinking of new applications first, Air France designed a platform that allowed for applications to access data without having to consider the intricacies of data access. With the first phase of the project completed, the new FIS acts as a base upon which applications, both internal and external, can be built.

Air France wanted to ensure that the FIS could communicate easily with other platforms and operating systems. This way no new business opportunity would be limited by the technology of another Air France group or partner. The communication requirement was met by Orbix, allowing Air France access its flight data from many applications, benefiting its customers and partners, and increasing business efficiency.

Orbix provides data access to all flight information applications in Air France. There are two main data sources within the Air France FIS-flight data and business operations data, which includes aircraft and geographical information. Any application needing this type of information can be integrated easily with the FIS, regardless of the technology used.

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"We had a successful relationship with IONA for several years, and were confident that Orbix would be the perfect fit for our requirements. In some benchmarks it has given us a 70% increase in load performance, and a 50% reduction in response times," said Mr. Colas des Francs.

Air France has developed the FIS by creating two main services. First is the flight server, which manages all flight data information. Second is the business operation server, which manages all other information related to the airline such as aircraft information and geographical data relating to routes and airports. All flight information applications-including flight-management systems, flight-parameter calculation, and broadcasting applications-access one or both of these servers. For this reason, the scalability and flexibility of Orbix was paramount.

Air France provides interfaces to its partners via the FIS. For performance reasons, Air France does not allow direct access to its FIS by any external organizations. For its partners, Air France has developed interfaces in several technologies, any one of which a partner can use to access Air France flight information-for example, MQ Series™ or Adhesion, which is a proprietary technology similar to Orbix, but is not object-oriented and is not connected.

"Orbix has given us the ability to go much further than replace our existing, aging systems. With our new flight information system, we can interoperate with any standards-based technology, and we are ready for whatever emerging technologies come along in the future," said Mr. Colas des Francs.

Results

The new FIS has been very successful, with flight data being available faster and more reliably than before. Air France is able to improve its customer service by providing data to customers quickly when flight information changes. Information is moved around the organization faster than ever before, allowing the business to react to the frequent changes in the industry. Also, with one centralized data source, the effort of managing such large quantities of data has decreased.

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