Digital Transformation of Airline Revenue Accounting System through an Intelligent Data Hub

Client Overview

The customer is one of the largest airlines in the world. Based out of Japan, it caters to over 50 million passengers annually across domestic and international routes with a fleet of over 300 aircraft and nearly 30,000 employees.

The Context

The customer wanted to replace its legacy revenue accounting application with a new and powerful revenue accounting product. This was necessitated by multiple drawbacks in its existing applications. Some of the key issues were lack of real-time revenue accounting, weak reporting power, higher operational costs, and the applications themselves nearing end of life with limited support. The migration however posed new challenges as different transactional systems could not seamlessly communicate and exchange information with the new revenue accounting system due to the lack of open interface standards. Hence an integrated hub system to realise the full benefits of the revenue accounting product was conceived to address these critical challenges.

Key Challenges

Data transformation requirements

The customer's business units that provided data to the revenue accounting system were using data in different formats. Thus, when the new system was implemented, there was a need to transform data into formats required for processing in the new system as well as to re-transform the processed insights into proprietary formats as required by other business systems.

Adapt dynamically to changes in data format

The customer had multiple sources of incoming data from various transactional systems. These included the customer's own manual and automated ticketing systems as well as the ticketing systems of the partner airlines. This complex set of upstream systems are managed by different entities and had the possibility of continued changes in the data format. It was therefore necessary to have a hub system with a highly configurable data receiver that can receive data from the multiple upstream systems and adapt to any changes and transform the data into a consistent data format for the revenue accounting system.

Disparate global operations and multiple reporting standards

The customer's international and domestic revenue accounting practices were highly decentralised and multiple teams were required for operations. As each of these teams operated as separate entities, it was necessary to have multiple reporting standards catering to the requirements of each of them.

Lack of real-time revenue accounting

Considerable manual effort was required to ensure accurate migration of data from multiple sources to the revenue accounting product so as to ensure effective reporting. This caused delays in revenue reporting and hence it was not possible to have a real-time output.

Delays in new functionality delivery

Diverse information exchange policies and a lack of unified data management led to considerable delays in adding new functionalities to the customer's technology landscape. Systems interoperability was a key issue that had to be addressed.

Program management complexities

The customer's transaction systems were managed by multiple vendors and they were plagued by multiple delays and changes in the original scope of the system during implementation. While creating an integration mechanism for these vendor systems, there was a need to accommodate these continued changes in scope and schedule which led to program management complexities.

The Solution

IBS Software built a powerful systems integration hub for the customer that facilitated the smooth transition of its revenue accounting processes from a legacy application suite to a modern enterprise platform. The customer was able to fully transition its domestic and international revenue accounting technical infrastructure into a robust and powerful unified platform and achieve the desired levels of efficiency in business operations. The hub was connected with several upstream and downstream systems and could process nearly 100,000 complex messages annually. The hub enabled the customer to seamlessly integrate different business systems and achieve high levels of accuracy in revenue reporting from different internal and external channels.

Outcomes from the Solution

Seamless data transformation

The hub solution developed by IBS Software was able to facilitate smooth conversion of data streams into formats required by multiple systems when they interacted with the new revenue accounting system. The hub ensured that the information exchanged was fully validated for business rules compliance as well as data integrity to ensure that accurate insights were generated by the new accounting system.

Robust information exchange mechanism

The hub solution transformed the enterprise information exchange channels between the customer's own manual and automated ticketing systems as well as partner systems and allowed for faster and more streamlined revenue accounting and efficient commercial utilisation of networked operations.

Unified revenue accounting

The solution enabled the customer to bring on-board technology infrastructure that enabled a unified revenue accounting practice for its international and domestic operations. It also helped simplify operations management with fewer staff. This helped in reporting the data in real-time, ensured the accuracy of the data reported, and reduced the manual efforts considerably.

Improved speed to market

By facilitating a seamless information exchange environment, the hub was able to bring about considerable changes in the customer's technology development capability for its revenue accounting operations. The existing legacy environment was a hindrance and it

complicated the addition of new technology increments with large delivery times. With the hub solution in place, it was easier for the customer to integrate capability enhancements smoothly in the new system and with improved speed to market.

Program management excellence

The program faced several hurdles and long delays due to other vendor dependencies and resulted in new teams being assigned for restarting the development activities. However, IBS Software's extensive program management and documentation practices ensured that the new teams could easily acquire knowledge about the solution's workflows and development guidelines. This allowed the program to remain on track despite the long gaps. IBS Software's approach was instrumental in helping the customer to transition its operations into the new revenue accounting system within expected timelines for better business results.

The IBS Advantage

The customer was able to meet its vision of unifying international and domestic revenue accounting practices through the hub solution that empowered all relevant business systems to interoperate efficiently with a new system. The IBS Software approach to handling various challenges that came up during the project execution such as changes in scope and delays from other vendors, was highly appreciated by the customer as it proved instrumental in rolling out the new system before the expiry of critical management deadlines. The customer now recognises IBS Software as a strategic partner in its path to achieve better business growth and improved passenger experiences through digital transformation.

Improved the accuracy of the revenue reported by approximately **10%**

100 % timeliness in completing the revenue accounting activities month-on-month

Reduced manual effort by **10%**

Improved the overall processing time for generation of revenue accounting reports by **15%**

About IBS Software

IBS Software is a leading SaaS solutions provider to the travel industry globally, managing mission-critical operations for customers in the aviation, tour & cruise and hospitality industries. IBS' solutions for the aviation industry cover fleet and crew operations, aircraft maintenance, passenger services, loyalty programs, staff travel and air-cargo management. IBS also runs a real-time B2B and B2C distribution platform providing hotel room inventory, rates and availability to a global network of hospitality companies and channels. For the tour and cruise industry, IBS provides a comprehensive customer-centric, digital platform that covers onshore online and on-board solutions. IBS Software is a Blackstone portfolio company and operates from 11 offices across the world.

Further information can be found at https://www.ibsplc.com