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IZO™ Multi Cloud Connect

# Airline Use Case

## Challenges

Airlines increasingly rely on a complex mix of cloud-based solutions for various operations, including:

**Reservation systems**
Managing flight bookings, passenger information, and ticketing across multiple platforms.

**Flight operations management**
Real-time tracking of aircraft, crew scheduling, and maintenance data.

**Inventory management**
Optimizing aircraft and seat allocation across various channels.

**Customer relationship management (CRM)**
Personalizing passenger experiences and targeted promotions.

**These solutions are often hosted on different cloud platforms (multi-cloud) for reasons like scalability, cost optimization, or specialized features. Connecting these disparate systems using the public internet can lead to:**

### Performance Issues

Delays in data transfer between cloud services can impact critical operations like reservation confirmation or real-time flight updates.

### Security Concerns

Sensitive passenger data traversing the public internet increases the risk of breaches and unauthorized access.

### Management Complexity

Juggling multiple cloud provider tools and managing individual connections becomes a burden for IT teams.

## Solutions

IZO™ Multi Cloud Connect is a software-defined cloud interconnect (SDCI) that offers a secure and performant solution for airlines to connect their cloud-based applications.

**Dedicated Connections:** By establishing private, low-latency connections between various cloud platforms and on-premises data centres (if applicable), SDCI ensures reliable and high-speed data transfer for critical airline operations.

**Enhanced Security:** Data exchanged between systems travels over isolated, secure connections, minimizing the risk of exposure on the public internet.

**Simplified Management:** A single interface for provisioning, managing, and monitoring all cloud connections streamlines network operations for airline IT teams.

## Benefits for Airlines

**Improved Operational Efficiency:** Faster data transfer between cloud-based systems ensures smooth operation of reservation systems, inventory management, and flight operations.

**Enhanced Passenger Experience:** Real-time data access translates to faster customer service, efficient boarding processes, and improved in-flight entertainment options.

**Reduced Security Risks:** Secure data transfer across cloud platforms minimizes the vulnerability of sensitive passenger information.

**Streamlined IT Operations:** Centralized management of cloud connections frees up IT resources for focusing on core business initiatives.

**Additionally, IZO™ Multi Cloud Connect, combining services with our Global public and private connectivity fabric will deliver:**

**Real-time analytics:** Analysing large datasets across various cloud platforms for route optimization, flight pricing strategies, and personalized marketing campaigns.

**Collaboration between airlines:** Establishing secure and performant connections with partner airlines for seamless code-sharing and baggage handling.

By leveraging IZO™ Multi Cloud Connect, airlines can create a robust and secure hybrid or multi-cloud network infrastructure, fostering operational efficiency, enhanced passenger experiences, and improved security for sensitive data.

## Case Study

**Overview:** This case study details the successful cloud migration journey of a leading Indian Airline. The airline leveraged IZO™ Multi Cloud Connect to achieve a seamless transition of its IT infrastructure to public cloud platforms like Azure and AWS while maintaining a secure and performant connection with Amadeus Global Distribution Systems, a critical partner for passenger service management.

**Background:** The Airline embarked on a transformation journey, migrating their applications to public cloud, as a part of their 'Cloud-First Strategy'.

This brought about the need to transition from the existing on-premises architecture to a multi-cloud environment. The migration involved transferring workloads, including network and security components, across three different cloud platforms.

The transition to public cloud environments necessitated a solution for the following:

**Performance Assurance:** Maintaining a reliable and high-performance connection throughout the migration process was critical. 2000+ users including travel agents and employees of the airline needed to access Amadeus PSS on a daily basis.

**Scalability:** Needed an on-demand platform to scale capability according to the business needs.

**Network Architecture Simplification:** The network heterogeneity between SDWAN in India and non-SDWAN internationally hindered efficient access to Amadeus cloud. Also, they needed a streamlined approach to seamlessly translation between private and public IP addresses.

## Solutions

IZO™ Multi Cloud Connect provided a comprehensive solution that addressed the airline's challenges:

**Secure and Private Connectivity:** A private MPLS VPN (Multiprotocol Label Switching) established secure connections between the airline's Azure and AWS resources and the IZO™ Multi Cloud Connect node.

**Redundant Virtual NAT Routers:** Two virtual routers were deployed within the IZO™ Multi Cloud Connect node in Amsterdam and Frankfurt, offering redundancy and simplified NAT management.

**Direct Connection to Amadeus:** These virtual routers directly connected to the Amadeus Global Distribution Systems in Munich, ensuring seamless communication for passenger service operations.

***85%*** **of the airline's ticketing revenue now flows through the IZO™ Multi Cloud Connect platform. More than 2 million transactions are processed each day, with 100% availability since deployment.**

## Benefits

The airline successfully achieved its cloud migration goals while reaping significant benefits:

**Simplified Architecture:** IZO™ Multi Cloud Connect facilitated a streamlined architecture for NAT management within the cloud environment.

**Cost Management:** By leveraging multiple clouds, the airline switched from a capex model to an opex model. The airline is also able to minimise egress costs associated with public clouds.

**Enhanced Performance:** The implemented solution offered a highly performant and reliable connection to Amadeus, exceeding industry standards with a 99.99% uptime Service Level Agreement (SLA).

The airline successfully transitioned its IT infrastructure while optimizing costs, simplifying management, and achieving exceptional performance in its connection to critical business partners like Amadeus. This has enabled more than 2000 users to access the systems with zero interruptions.

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