

## CUSTOMER SUCCESS STORY

**Thiruvananthapuram**  
INTERNATIONAL AIRPORT

# Transforming an Airline Cargo Management System and its Operations



## Company Bio



 **InApp**



The air cargo complexes at Trivandrum and Calicut airports play a crucial role in the logistics infrastructure of the southern state of Kerala, India. Both airports are managed by a holding company of the Government of Kerala, which specializes in domestic and international cargo shipping and transportation. The company has been operational since 1973 with bases set up in five business centers across Kerala to enable the smooth movement of cargo via air transport.

Established as a reliable and efficient player in the logistics industry, the holding company provides seamless cargo-handling services to customers. The Calicut Air Cargo Center (CACC) is an important logistics hub established in 1995 to handle unaccompanied baggage, which later moved to its own air cargo complex in Karipur. CACC expanded its operations to include export handling in 1998, followed in 1999 by a full-fledged air cargo complex capable of handling up to 75-100 MT of export cargo and 450-500 MT of import cargo daily.

Another hub for cargo handling in Kerala is the Trivandrum Air Cargo Terminal (TACT). With operations starting in 1979 for exports and later expanding to imports in 1984, TACT has a wealth of experience in handling all types of cargo, including fruits, vegetables, meat, fish, and general cargo. TACT also provides transshipment services for this type of cargo.



## Transforming an Airline Cargo Management System and its Operations



### Business Challenge

The holding company needed to upgrade the cargo handling systems at the Thiruvananthapuram and Calicut airports without disrupting the current airport operations. The existing systems were based on outdated software and operating systems (DoS and FoxPro), which were no longer efficient for modern cargo-handling operations. The client required an upgrade to modern software and practices that would improve efficiency and reduce errors.

The upgrade process also included the replacement of the conventional messaging systems in all airports with modern EDI/XML-based messaging systems that could communicate with the government applications.



### Solution

The existing cargo management system was replaced with a modern web-based and communication-enabled system, which allowed for the inclusion of users like forwarding agents, statutory government agencies, and global airports. The new system was designed to interact with the government's ICE-Gate and Customs Department, and it included warehouse management functionality.

The application was created using Apache-Tomcat Application Server tools and technologies, and it utilized web services to exchange data between the modules. The system functionality was divided into four services: Import, Export, Warehousing, and Goods Checkout, which were interconnected using custom web services. Inapp later added support for the Indian Government's GST preferences to enable seamless transactions.



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The relevant framework and the integration of the four modules were completed in 2004, which was a challenging task as the concept of Service-Oriented Architecture (SOA) was still new, and tools were limited.



### Benefit

The solution developed by InApp using SOA tools and technologies enabled the client to transform into an on-demand business. By leveraging this system, the client was able to collaborate more closely with participants in the global supply chain, meet new business requirements, and provide a more user-friendly and adaptable application for its customers.

The Checkout module and the EDI messaging system underwent significant changes, resulting in a notable increase in customer satisfaction. Additionally, the cargo management system was enhanced to comply with the GST requirements of the Indian Government, leading to smoother transactions.

### Industries / Solutions

- ✓ Facility Management
- ✓ Cargo Management
- ✓ Cargo Management

### Technologies Employed

App Server - **Apache-Tomcat**  
Language - **Java**  
Database - **PostgreSQL**

### Overview

- Upgraded the cargo handling systems for improved efficiency and reduced errors
- Enhanced and reliable cargo-handling services, strengthening our client's position in the logistics industry