

CargoFlash Infotech

Website: <https://www.cargoflash.com/>

Customers benefits from the implementation of nGen systems



nGen
Next generation
systems

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Introduction

About Cargo Flash Infotech

Cargo Flash is one of the leading IT and business consulting solutions provider firm

exclusively focused on the Air Cargo Industry. It seamlessly integrates client's business and organizational strategies with IT implementations, thus helping them to improve their financial performance and operational efficiency. With offices in Delhi and Mumbai, Cargo Flash employs a team of nearly 120 experts in the domain of Air Cargo.

The bouquet of products from Cargo Flash provide an end-to-end Cargo Reservations System, Cargo Revenue Accounting, Warehouse/Cargo Handling Management, Door-to-Door/Ecommerce Virtual Integrator System, Revenue Planning System and Slot and Doors Management System. These solutions offered are designed with the objective of being scalable, flexible, transparent, reliable and streamlining the business processes for revenue growth, by using state-of-the-art technology.

Our Vision

To be preferred IT vendor in aviation and logistics space.

Our Mission

To continuously innovate for building a synergistic portfolio of aviation & logistics related business, thereby creating an enduring value for our principals

Background to the study

The first cargo flight took place on the 7 November 1910 in the USA, between Dayton and Columbus, Ohio. Philip Orin Parmelee piloted a Wright Model B Aeroplane 65 miles (105 km) carrying a package of 200 pounds of silk for the opening of a store.

Since then the Air Cargo Industry has come a long way, however, despite widespread hopes for a vibrant industry, for decades the air freight sector has not grown as expected and still remains a small part of total air traffic, reason being still most carriers see it as a secondary activity, although there have always been specialized cargo airlines. This is changing slowly as some passenger airlines have found the practice of carrying "belly cargo" a highly lucrative enterprise (in fact, it is estimated that 50% of all air freight is moved in this way).

Air cargo is a trade facilitator that contributes to global economic development and creates millions of jobs. The global economy depends on the ability to deliver high-quality products at competitive prices to consumers worldwide. The value of goods carried by air has exceeded \$6 trillion in 2018. Airlines transport over 52 million metric tons of goods a year, representing more than 35% of global trade by value but less than 1% of world trade by volume. That is equivalent to \$6.8 trillion worth of goods annually, or \$18.6 billion worth of goods every day

On average, cargo business generates 9% of airline revenues, representing more than twice the revenues from the first-class segment.

When a demand on one place is supplied from another place with air transport as the main transport mode, an air cargo supply chain must be compiled.

Air transport is relatively expensive, but often the fastest mode of transport available to cover medium to long distances.

The air cargo supply chain consists of several parties: the forwarders collect air cargo shipments and consolidate these shipments in regional warehouses all over the continent. They decide upon the export airport and bring it there to consolidate all shipments in their air cargo hub - warehouse according to the chosen flight. Using local truckers, the shipments, consolidated by airline, are forwarded to the handling agents to load air cargo containers or to build up air cargo pallets. The containers or pallets are brought to the apron and loaded into the planes. There is not a single chain existing; the parties involved are part of a dynamic network which is fixed with every single shipment

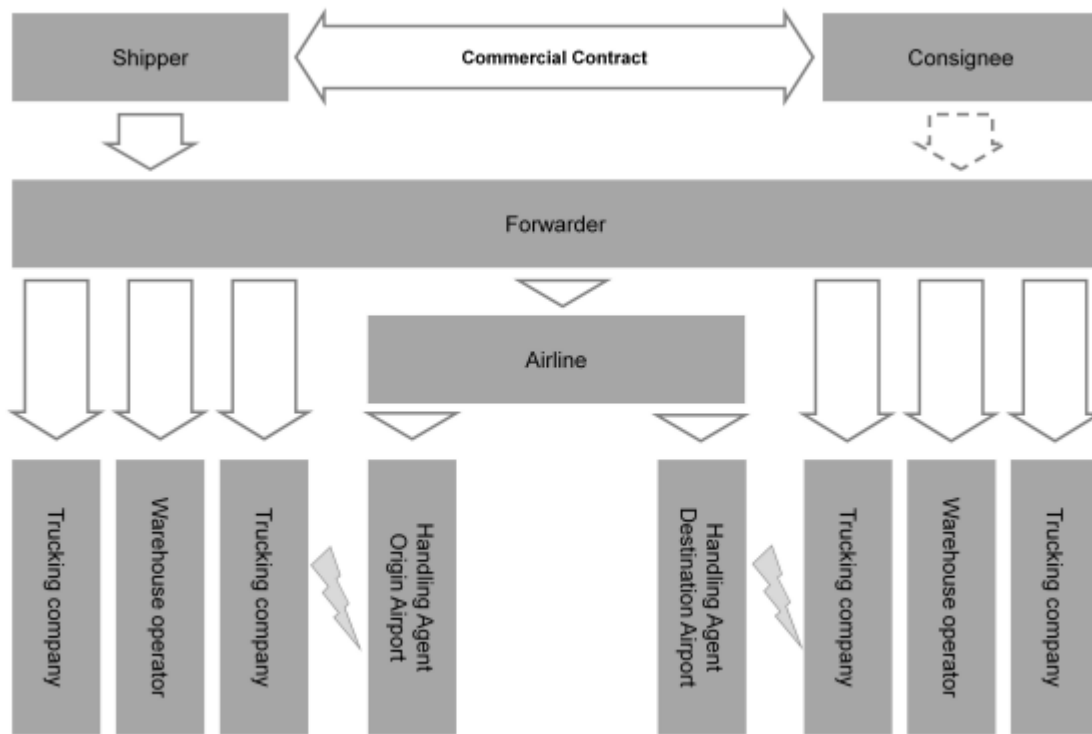


Figure 1: Stakeholders in Air Cargo

The size of the global air cargo market is expected to exceed 85 million tons by 2021, growing at a CAGR of 5% between 2017-2021. During this forecast period, the growth in air cargo market size will be attributed to the rise in global e-commerce business and a need for instant shipment and delivery, as retailers are increasingly preferring the option of air cargo shipment for quick deliveries and enhanced consumer satisfaction. Additionally, rising demand from just-in-time manufacturers, who manufacture goods just before the loading of cargo onto the trucks, is another major growth factor for the air cargo market.

However, the air cargo industry still almost exclusively relies on paper-based manual processes or using multiple non-connected legacy systems to facilitate the domestic and international movement of freight. The average shipment generates more than 30 documents that are used and/or handled by the various parties involved. These paper-based, disconnected processes are not cost-effective and does not serve well the key requirements of air cargo: quality, security and speed.

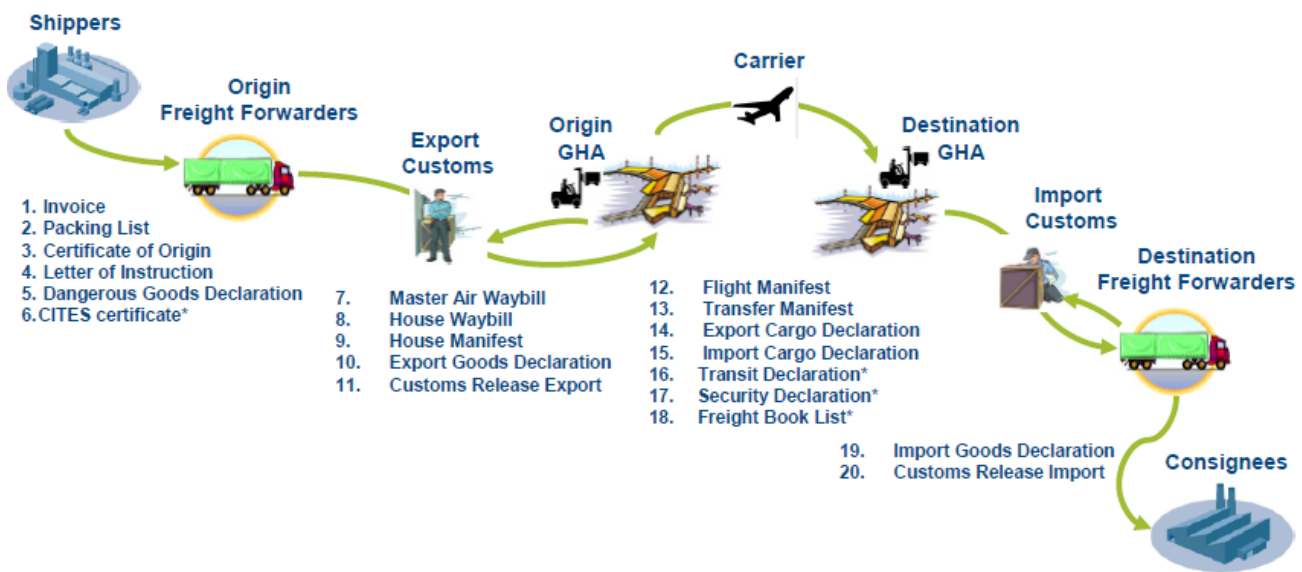


Figure 2: Manual documents, processes in Air Cargo

Generic Advantages through nGen Systems

The nGen systems are web based, and cloud hosted solutions is using the latest technology and has seamlessly integrated Sales, CRM, reservations, Express Door to Door, accounting, operations and HHT modules. This makes the complete cargo aviation process

seamlessly exchanging information real-time and taking out the need for an airline to manage anything manually outside the system.

The system gives an absolute peace of mind and from booking to rating to invoicing and payments everything is done and captured directly and automatically in the system.

@ Real Time Actionable Business Intelligence

@ Increased Operational Efficiency

@ Abreast with IATA's initiatives (e-AWB, e-CSD etc.)

@ Highlight and Minimize Revenue Leakages

@ Low Cost of Ownership

@ Customer Centric Approach

@ Flexible Implementation and Payment Models

@ Cuts down duplication and repetition of processes

@ New Age Technology

I. Garuda Indonesia

About the Airline

Garuda Indonesia, the national flag carrier of Indonesia, seamlessly connects more than 90 destinations worldwide to not only one of the largest economies in Southeast Asia, but also an array of exotic destinations in the beautiful archipelago of Indonesia all at once. With more than 600 daily flights, Garuda Indonesia proudly serves its passengers with the award-winning "Garuda Indonesia Experience" service, which highlights the warm Indonesian Hospitality and rich diverse culture.

Garuda Indonesia group currently operates 202 aircraft with an average age less than five years. This amount is accommodated by Garuda Indonesia as a main brand with a total of 144 aircraft, and Citilink as a Low Cost Carrier Airline which operates 58 fleet aircraft.

The airline continuously strives through its ongoing transformation program to provide better and even more convenient services. The achievement of Garuda Indonesia's transformation program can be seen from global recognition a Skytrax's 5-star airline rating since 2014, ranked as Top 10 Worlds Best airline in the world, as well as winning the prestigious "The World's Best Cabin Crew" award for five consecutive years from 2014.

To complement the Skytrax Awards, Garuda Indonesia also awarded the "5-Stars Airline" recognition from the Airline Passenger Experience Association (APEX), a non-profit association for enhanced passenger flight experience based in New York, USA.

Precursor Garuda Airlines being the national carrier performs the following roles in Air Cargo chain

- a. Airline, for transporting Air Cargo
- b. GHA at the airports in Indonesia to handle self cargo

Multiple Systems

The lifecycle of cargo moved through multiple disconnected or non-real time connected systems in addition to lots of manual paperwork. Garuda Indonesia utilised the following different systems to manage their Cargo

1. **Reservations and Operations:** Skychain was the primary cargo reservations system, wherein internal users could book their shipments, but not view the billable rate that will apply on the AWB. Skychain was also used to manifest flight, however it was more of a manual data entry and users needed to update the AWB records again in spite of record already existing from booking.
2. **Booking Portal:** Booking portal was for the external forwarders to book shipments and the data once booked will be pushed to Skychain, no credit management or advance bank payment option was available
3. **Acceptance Weight Capture:** The system called BTB online was installed to capture weight for outbound shipments, however it only generated a paper slip and user had to manually update Skychain with the weight
4. **Warehouse Charges Export:** Inhouse system was developed to calculate the warehouse charges and generate the invoice, no cashiering function and no data exchange with the reservations or revenue accounting system
5. **Warehouse Charges Import/Inbound:** Another separate and isolated in house system was used at the import/Inbound warehouse to calculate and print invoices

6. **Claim and Complaint:** A standalone system was used to update complaints and claims but not connected with any other system, all data required to be updated manually and did not had station level access.
7. **ULD Management:** ULD management was done again using a separate standalone system and data not exchanged between reservation and ULD system
8. **Cargo Revenue Accounting:** The revenue accounting was done of another system called Rapid this was integrated with Skychain but not realtime but rather using nightly batch files, this lead to lot of mismatch between actual AWB record and the one transferred also the delay of one whole day

Challenges

With these eight different systems Garuda was facing the following challenges: -

1. Owing to these eight disconnected systems there was duplication/repetition of work and same data required to be entered in these different systems
2. Reservations and Revenue accounting systems hosted out of dedicated servers maintained by Garuda inhouse IT company and not scalable, high availability or with disaster recovery
3. Very limited visibility and transparency of data
4. Lot of revenue leakages owing to manual data processing
5. No control on actual weight of shipments brought into the warehouse owing to manual weighing
6. No rating at the time of reservations thus forwarder cannot know what the final pricing is while booking
7. No distinction between international and domestic business processes and rules
8. No credit limit management for forwarders in reservations
9. No walkin cash collection process in reservations
- 10.No real time business intelligence
11. No buildup process of ULDs in reservations
12. No visibility of warehouse locations and inventory
13. No integration with Indonesian customs

14. No real time warehouse operations processes

Cargo Flash Solution

Cargo Flash understood the pain area of Garuda Indonesia and through innovation provided the solution of nGen integrated cargo management system which delivered the following -

1. One single seamless platform replacing all the eight systems in use by Garuda Indonesia
2. All data duplicity and repetition of data entry removed
3. Revenue leakages plugged in
4. Web based cloud hosted solution with HA and DR, completely scalable
5. Direct integration of weighing scales and volume scanners with the system
6. Realtime dynamic rating, now users can view rates at the time of booking itself
7. Integrated with bank and payment gateways, deduction of payment immediately after booking
8. Instant data visibility to the accounting and finance team without any delay and also in case of any operational data changes updated at the finance side which was missing earlier.
9. System access provided to even regulated agents (3rd party cargo acceptance warehouses) and now the cargo accepted by them automatically reflected in airline system. Earlier there was no visibility.

10. The solution included integrated warehouse management that allowed creation of actual warehouse location on the system and assigning shipments to those locations, thus making the tracing activity quite easy and with less missing shipments. The warehouse management included even the security process to capture shipment X-ray
11. Not only all the import/Export warehouse charges were getting calculated automatically and invoice generated but the integrated cash register allowed complete cash collection process
12. The offered solution included built in business intelligence providing real time reports and dashboards, keeping the Garuda management abreast and on top of the business
13. Solution offered also included full mobility in the warehouse with the nGen HHT apps for android that now allowed the Garuda warehouse staffs to perform all the warehouse activities, including acceptance, fetching weight and volume, build-up of ULDs, assigning to location, creating flight manifest and even offload at the ramp all at the convenience of their mobile phones. The app allows scanning of traditional IATA label barcodes as well as nGen's own generated QR codes. This made the complete warehouse process which was earlier done mostly on paper or manually entered one by one on multiple systems, absolutely simple and users now just require to scan the pieces from their HHT and process get completed and instant visibility to all the stakeholders.