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Innovation in Motion – Enabling Global Trade one shipment at a time

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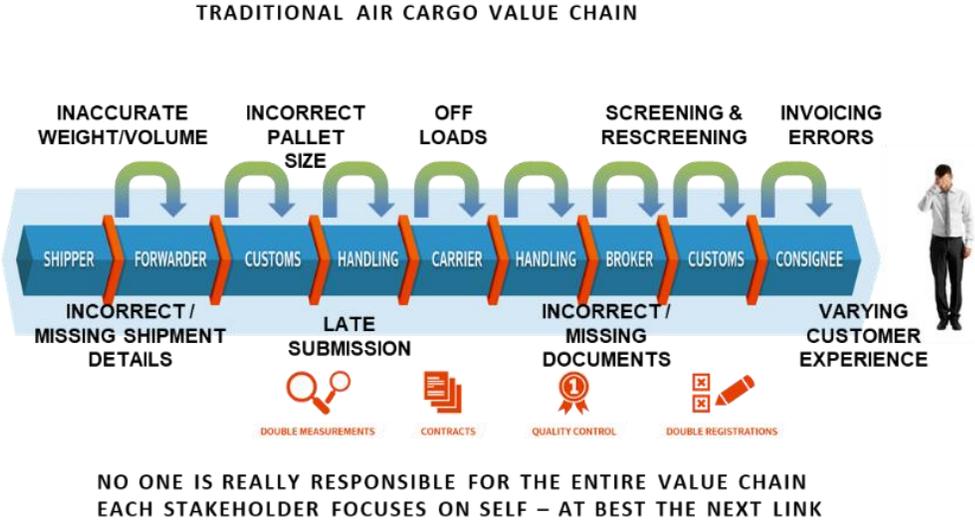
Meet SmartKargo, the youngest and most innovative Software as a Service (SaaS) provider to the Air Cargo & Logistics industry—with the most advanced, holistic and seamlessly integrated Cargo Management solution on the market.

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Air Cargo is a global driver of world trade; 35% of total trade by value, representing close to \$7 Trillion worth of goods transported around the world by air. After a short period of decline following the 2008 economic crisis, the industry has now fully recovered and has entered a period of sustainable market growth, fueled by an acceleration of global trade and the fast growth of E-commerce. As of early 2017, the industry is again growing at its fastest pace since 2010 (double digit growth measured in FTKs). According to recent market studies conducted by Boeing, the industry is expected to more than double in size by 2033.

Despite promising market conditions, the traditional Air Cargo operators are struggling to capture growth, even in a very competitive market, due to the many challenges they face. To cite a few:

- The industry is still relying on antiquated systems and processes
- The value chain is too fragmented and bureaucratic with many stakeholders who do not share focus on the end client
- Lack of reliability, on-time delivery and cost effectiveness
- Failure to provide clients with flexible and diversified services needed to support their Digital Commerce
- Heavy regulations and paperwork required to comply with regulations of Government and other agencies



The industry is in need of a major transformation, supported by faster adoption of new technology trends such as Mobility, Cloud, Big Data and real-time Insights and Analytics. Today, the movement of data associated with every shipment is becoming as important as the movement of goods.

While the air freight industry has made some progress due to initiatives such as e-freight, e-AWB and Cargo-iQ, led by the significant efforts of the International Air Transport Association (IATA), air cargo needs to adopt and process implementation of new technologies faster to avoid missed opportunity.

A perfect illustration of this for scheduled Airlines operating a cargo business is to compare, at a high level, the footprint of the integrators (UPS + Fedex) in the US market, compared to the combined Air Cargo business of the US combination carriers (American, Delta, United, Southwest, Alaska, Hawaiian, et al.). The integrators make roughly ~\$30 Billion in annual revenues carrying air cargo on a combined fleet of 800 aircraft, while the combination carriers only realize ~\$3 Billion in annual revenues from a roughly similar capacity—carried in the belly space of its fleet of ~8000 combination aircrafts (Passenger/Cargo). Ever wondered why? Look no further, it all comes to the following:

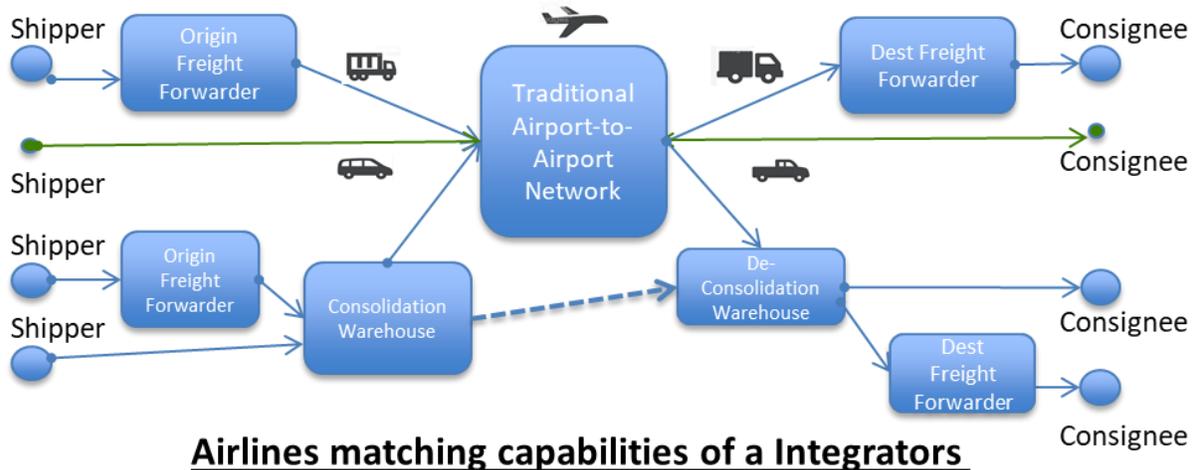
Integrators (UPS + Fedex)	Scheduled US Carriers
Responsible for the entire value chain	Responsible for the Airport to Airport piece only
Direct Sales B2B and retail (B2C)	Freight Forwarders wholesale to end clients (B2B mainly)
Own Employees operate and deliver	Partners deliver
Integrated Door-to-Door Service	Airport-to-Airport Capability only
Hub Architecture	Network Architecture
Heavy dependence on technology: End-to-End integrated technology solutions	Antiquated and fragmented technology solutions

Technology is key to remediate some of the discrepancies highlighted earlier. Today, the fragmentation of the Cargo value chain, combined with a lack of real-time availability and integration of Data (Sales, Operational and Management Data), are key reasons 70 percent of the usable belly space of combination carriers (passenger/cargo) flies empty and nearly one in every 6 shipments on average misses the delivery time promised. This calls for the immediate adoption of 'disruptive' technologies like cloud computing, big data and mobility that have the potential to remedy these problems— bringing about positive change for the industry.

This paper intends to describe how SmartKargo, the industry's newest Air Cargo Management solution provider, is driving needed industry change and transformation by putting real innovation in motion:

Extending the Value Chain to the End Client:

With Its industry-first Door-to-Door solution, SmartKargo has enabled a complete end-to-end integration across the entire value chain. Now Air Cargo operators can intentionally and willingly adapt their business model from a commodity-only business, wholesaled by third party partners (Freight Forwarders and 3PLs), to a multi-segment business model approach. This enables airlines to offer similar end-to-end service to Shippers, capture E-commerce opportunities and safeguard the traditional Wholesale business channel all at once—providing Airlines with similar capabilities and integrated technologies to compete against the integrators such as UPS, Fedex and DHL. By adopting many of the disruptive technology trends, direct access to game changing solutions can be pushed to shippers via mobile apps (**mobility**), self-service or portal technologies, providing them with real-time information (**BI and Analytics**) for booking, driver pick-up (ground transportation) tracking, status updates and instant invoicing. Similarly, at the other end (towards consignees) and simplifying the processes by going **digital** all the way (e-pouch, e-AWB, e-manifests).



Delivering Complete Horizontal Integration across the Value Chain:

SmartKargo **Cloud-based** designed and delivered solutions, since inception, allow fast and easy integration and real-time information sharing between Cargo Airlines and the growing scope of logistics partners and stakeholders across the value chain, such as Shippers, forwarders, first/last mile providers, GSAs, customs agents, Cargo- and Ramp handling agents, Airline trucking (flight extenders). SmartKargo end-to-end Cargo Management solutions were born and built “**on-the-cloud**”, operated on Microsoft Hyper-Scale Azure platform, they can be used on any device, anytime, anywhere.



SmartKargo has enabled a complete horizontal integration across the industry total value chain by:

- Either allowing Cargo airlines to on-board partners on parts of the SmartKargo delivered Airline Solution: While many partners have their own solutions, not all of them have interfacing and messaging capabilities. For such partners, Airlines using

SmartKargo can provide **role-based access** to key functionality that they can perform on SmartKargo itself.

- Or either by facilitating easy interfacing with SmartKargo delivered Airline Solution: For partners that have advanced IT Solutions, SmartKargo exposes **200+ set of Interface methods (APIs)** that partners can use to perform multitude of functions. Same APIs are used by SmartKargo Mobile Apps.

Extending Cargo Airlines' reach and network through Vertical Integration Capabilities

By providing multi-carrier cooperation capabilities to Airlines using the same solution from SmartKargo and extending cross-selling and information sharing capabilities through GDS-like booking portal, SmartKargo has provided the Cargo industry a powerful set of tools that allow Vertical integration amongst Carriers—with different levels of cooperation. Through negotiated and pre-agreed multi-airline cooperation and collaboration agreements, Airlines can now extend their reach beyond their own networks of coverage by building different level of cooperation (Interlining, cross-selling, joint-handling, process sharing,



first-and-last mile, full alliance). This means that one small airline in the US can now offer its end clients a Cargo service to pick-up and deliver across the entire Continent—but also across the oceans—by building a network of alliance partners whereby a shipment can be booked, sold, handled and delivered at end-point by joint action of multiple partner airlines. The end result is increased revenues and business opportunities for participating airlines and enhanced capabilities for all to offer similar reach as the integrators.

Innovation across every operational step

Fast adoption of new technologies requires next-gen business solutions to be designed, developed and operated at the intersection of Secure Cloud technology, Mobility, Big Data and real-time information and insights, to name a few of the disruptive technology trends that are shaping our Digital world. SmartKargo was born this way. Today, From EZ booking to automatic data capture, real-time confirmation, real-time and advanced pricing, real-time Capacity Allocation, real-time notifications and monitoring, Capacity Controlled Revenue Management, BI and real-time decision making for on-the-spot, based on profitability analysis by shipment/ by flight/ by network, to the introduction of Cargo-based loyalty programs. These are some of the innovations that are positively impacting both process simplification, cost reduction and improved Revenue generation for Air Cargo carriers.

Summary and Conclusion

Digital transformation at the speed of light. Are you ready ?

Cloud-technology, APIs, Advanced User Interface and Mobility all the way are key for Speed-to-Market. These technologies are faster to implement, faster to change/adapt to new paradigms and enable key initiatives such as Mobility and E-Commerce towards the end-clients. SmartKargo is delivering true value to the Air Cargo Industry.

- Improved Revenues, Better Service
- Greater efficiency, More Flexibility
- Instant Information, Better Decisions

**For more information or a demo, please contact the author: Olivier@smartkargo.com
or the SmartKargo sales team: sales@smartkargo.com**