DHL is a key logistics partner for ZF. Just in 2013, DHL Global Forwarding delivered 35,000 parts weighing 4,000 tons, which sum up to 32 fully loaded 747 cargo airplanes, to locations all over the world. These numbers illustrate why ZF is continually expanding its logistics capacities. However, this scale and global scope gave ZF concerns about supply chain risk. The company wanted to find ways to mitigate and effectively manage this risk to ensure business continuity in its end-to-end supply chain.

CUSTOMER OBJECTIVES
Airfreight was considered a 'last resort' at ZF, used only when essential to maintain production schedules and avoid customer delivery delays. The company therefore identified airfreight as a significant risk, especially if disruption occurred at a critical airport. ZF also identified an existing inefficiency – it could not competently provide automotive industry OEMs with timely incident information detailing potential impact down to supplier- and material number-level. The company wanted to become more proactive.

ZF decided to explore these issues through a joint pilot on the ZF airfreight network controlled by DHL Global Forwarding (DGF). More than 10,500 ad-hoc shipments are routed to 55 countries through this network annually – intra-company and to ZF customers and suppliers. The network architecture is based on the company’s supply chain, and the main focus is on delivery out of Germany.

Customer Objectives
- Achieve a 'big picture' perspective on its approach to supply chain risk management
- Avoid costs related to supply chain disruption (e.g., production outages, sales losses)
- Gain instant access to detailed incident information, saving time and cost, and enabling employees to focus on the right things during disruption
- Develop the business case for implementing supply chain risk management in ZF

DHL Solution
- DHL’s new supply chain risk management solution, Resilience360 to:
  - Visualize ZF’s supply chain network
  - Provide risk assessment of airfreight, a critical part of ZF’s supply chain
  - Bring 24/7 incident monitoring into ZF’s operations
  - Minimize customer efforts by using DHL’s existing network data

Customer Benefits
- End-to-end risk visibility and manageability of airfreight disruption in the supply chain
- Insight into related costs and financial benefits, justifying ZF’s supply chain risk management efforts
- Identification of five out of 167 airports as risk hotspots, ensuring business continuity through strategic and operational mitigation measures
DHL SOLUTION

To show the value of risk management in day-to-day operations, DHL delivered its innovative supply chain risk management solution, DHL Resilience360. This was customized with DHL’s existing data from the ZF network, and benefitted from DHL’s data analysis expertise and mapping techniques.

This DHL solution provided ZF with a tailor-made risk assessment study and a supply chain incident monitoring platform customized for ZF’s airfreight network and key suppliers. DHL also contributed best-practice methodology in business contingency management, along with vast knowledge of supply chains generally and, through long association, specific understanding of ZF’s supply chain. For the survey phase, DHL was able to find contacts at each site without needing to involve ZF, saving time and money.

A specific feature of this airfreight supply chain is that ZF shares responsibility with DHL for airfreight outbound logistics. While DHL manages the ZF airfreight network, ZF undertakes customs clearance to other countries. Rerouting decisions are therefore limited to locations where ZF has a customs clearance broker in place and its ability to switch brokers at short notice.

For its airfreight network hotspot analysis, DHL mapped the end-to-end ZF airfreight network, and then assessed risk exposure for all 167 airports, 500+ ZF sites, and multiple customers and suppliers in the network. Finding critical airports around the world, including USA, Russia, China, India, Brazil and Mexico, the team used surveys to check risk mitigation measures at these airports – these surveys helped to determine ‘risk impact’ scoring. The next step was to determine ‘risk severity’, using a combination of risk impact scoring with an analysis of possible mitigation measures (e.g., rerouting). DHL also checked for strategic and operational ways to optimize mitigation measures, and found new potential to improve airfreight resiliency in ZF’s identified growth markets – China, India, and Brazil – while confirming that existing solutions at other hotspot airports are operational.

This pilot succeeded because of clear, structured, available risk assessment methodology, and DHL’s proactive analysis scoping. In addition, excellent communication between ZF, the DHL Resilience360 Team and the DHL control tower made it easy to confirm implementation feasibility in the operational environment.

CUSTOMER BENEFITS

With DHL’s solution, ZF achieved end-to-end risk visibility and manageability of airfreight disruption in the supply chain. It also gained insight into related costs and financial benefits, so it can measure the necessity of supply chain risk management efforts to the business.

Very usefully, the company now knows where to focus attention and risk mitigation to ensure business continuity. The pilot identified five out of 167 airports as risk hotspots (ie, locations where disruption could cause significant shipment delays). Using DHL’s proposed mitigation measures, ZF can increase the resilience of its supply chain to airfreight disruption, and can apply these techniques to other parts of its business in future.

“This pilot exceeded expectations. It shows the value of risk assessment and constant incident monitoring, and makes a strong case for supply chain risk management across the business.”

Peter Heim
Senior Manager Logistics, ZF Group

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