



COMCIS 

Raising the
predictability
of ocean freight
logistics

Logistics customers love speed, predictability, and knowing where their shipment is. Which is why, all other things being equal, most people would choose air freight. But suppose you could combine ocean freight's lower costs with the predictability of air freight? You could add value for your ocean freight customers, and maybe even capture some of the air freight market too.

This potential hasn't been lost on the logistics industry, which is always looking for ways to enhance efficiency, improve service, and lower costs. A primary example is DHL. Rather than basking in the glory of being the world's biggest logistics company, the company is constantly looking for ways to improve the quality of its ocean freight service. And what better way than enabling its staff to take better and timelier decisions, decision that deliver a better logistics performance for the customer? This would help retain existing ocean freight customers and win new ones. And going a step further, it could help convince traditional value, time and condition-sensitive air freight customers that ocean freight can provide a good alternative. It could even enable DHL to offer large customers a portfolio of air and ocean freight services that they can mix and match as needed, while still receiving the quality service they require.

The common denominator in this is information – more information, better quality information, all

available more quickly and more easily, without this resulting in information overload. It's something that DHL is already pursuing. The company's Ocean Secure offering, for example, enhances ocean freight service by incorporating information solutions that monitor where a container is, whether there has been a security breach, what condition the cargo is in, and whether there are deviations from the delivery plan. "Everybody wants to improve their service," says Sebastian Seidel, head of Ocean Secure, part of DHL Global Forwarding, "and one way to do that is to improve predictability and transparency. DHL already has systems in place to do tracking and tracing, exception management, and increase visibility. The next step is to identify and incorporate external data sources and utilize correlations between multiple sources to increase the reliability, timeliness and completeness of information. And do so without requiring major changes to our IT systems."

WHOSE DATA CAN YOU TRUST?

DHL's commitment to taking its services to a new level meant it was immediately interested when it heard of a new EU-funded project, COMCIS, into the commercial viability of employing situational awareness-based information services in logistics. "We were already linking our own operational systems to create visibility, but **we had no platform to link with external services and make them visible**, and combine those with, for example, container security device data," explains Seidel. "One of the major issues we faced was to find out whose data was correct – the terminal that says it received the container on Monday, or the carrier that says it



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was delivered on Sunday – and how to eliminate blind spots in our data. Participating in COMCIS gave us the chance to share innovation and expertise and so develop a solution that provides more reliable and complete visibility, based on external as well as our existing internal sources.”

Sharing innovation and expertise, however, was just the starting point of DHL’s ambitions for the COMCIS project. The company wasn’t interested in incremental improvements – it wanted to see if the tools used as part of COMCIS – either newly developed or drawing on systems developed



in previous EU research projects – could help it raise its standard services to the enhanced levels that would attract value, time and condition-sensitive customers. This would require major advances in three areas:

1. Achieving more accurate forecasting and timelier deviation reporting, so that DHL and its partners and customers could plan for and respond to them earlier.
2. Integrating disparate and disconnected data contained in proprietary container-tracking mechanisms so as to create a holistic view of the respective operational situation.
3. Improving DHL’s proprietary Visibility Platform by making it possible to eliminate or complete inconsistent and contradictory data from other systems, so improving efficiency and service quality.

About COMCIS

COMCIS was a two-year project to explore the possibilities and commercial viability of employing situational awareness tools to solve problems of data fragmentation, delay and inconsistency throughout the global supply chain. The project used the Common Framework supporting interoperability between ICT systems in logistics and deployed a three-layer architecture based on:

- 1) Aggregating data from multiple sources without requiring changes to the underlying IT systems;
- 2) Standardising data so that it could be processed by value-added services, independent of its original source and format;
- 3) Consolidating data to create on-time, qualified and derived information that could support operational decisions by delivering the right information to the right person, at the right time, in a user-friendly way.

The COMCIS project ended in September 2013, but the ideas and technologies continue to be developed by the participants. COMCIS was co-funded by the European Commission.

SHEDDING LIGHT ON BLACK HOLES

The primary challenge facing DHL and COMCIS was finding a simple way to eliminate the typical “black holes” that arise in a multi-party logistical chain. These include routing information and a lack of insight and transparency at key handover moments like terminal/carrier, carrier/import and transshipment.

This in turn led to the development of a concept and application called Ocean View. Set up as a SaaS (Software-as-a-Service) that would work with DHL’s existing IT applications without requiring a cumbersome integration project, Ocean View consolidates, standardizes and aggregates multiple data from internal and external sources,

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Benefits at a glance

- Ocean View successfully aggregates, standardizes and consolidates multiple data from external sources.
- Full door-to-door transparency for DHL, partners, suppliers and customers, with the ability to act in time in case of deviations from plan.
- Provide enhanced ocean freight services suitable for value, time and condition-critical customers.
- Ocean View delivers on-time and accurate information and shows a high availability and responsiveness to real-time disturbances in the supply chain.

presenting them on a special dashboard. The benefits are twofold. First, adding external data sources to the ones already available to DHL provides a more complete and reliable picture of the situation at any point in time. Second, integrating multiple data sources, correlating different types of data and applying customizable business rules to arrive at reliable conclusions enables DHL's logistics operators to make better and timelier decisions based on more complete and reliable data.

SITUATIONAL AWARENESS MADE EASY

Beyond all the talk of data consolidation and validation, the million dollar question is whether Ocean View helps DHL staff improve the level of

service they can provide, and according to Seidel it does. In fact, points to four ways in which more and better information adds value to its operations. First, Ocean View's single dashboard, with its integrated overview of all relevant information, enables the company's operational control staff to identify supply chain disturbances earlier and so take steps to re-plan or inform customers sooner. It also enables customers to monitor what is happening with their shipment themselves. Second, increased control and situational awareness enables DHL to reduce failures and delays and so raise transport quality. Third, this increased supply chain reliability feeds through into customer satisfaction. And fourth, integrated information flows are more efficient, which lowers operating costs. "Ocean View has turned out to be a very flexible and handy tool to create situational awareness in a way that is quick and easy to use," says Seidel. "When you use Ocean View, **the only thing you need to know is that there is a container coming. You enter that into Ocean View and you get the situational picture in a single dashboard**, including all the external information that is linked to that container."

Further information

Ocean View was developed for DHL Global Forwarding by Logit Systems BVBA. It was tailored in line with the requirements for DHL's business case in the COMCIS project. This was demonstrated as part of the operational track of the COMCIS project, delivering proof that results from past EU projects could be used economically viable and in full operations.

For more information: Go to <http://www.comcis.eu/dhl.html>

or contact:

Sebastian Seidel, Head of Ocean Secure – Global Ocean Freight at DHL Global Forwarding (sebastian.seidel@dhl.com)

Frank Knoors, Managing Director at Logit One NV (f.knoors@logit-one.com).

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