DCS i.LOGISTICS

KN KUEHNE & NAGEL

Integrated Software Solutions
for Logistics and Freight

Kuehne & Nagel **CASE Study**

Kuehne & Nagel's Contract Logistics and Global Forwarding divisions have dramatically streamlined the logistics service from European suppliers feeding into Scania's production lines in Brazil and Argentina.

Case Study

Scania in brief

Scania is a leading manufacturer of heavy trucks and buses as well as industrial and marine engines. Of its 28,000 employees, 4000 work in Latin America, as part of its overall strategy to expand into developing countries. Here Scania has production plants in Brazil and Argentina, with a significant share of the heavy truck and bus market in both countries.

The plant in Tucuman, Argentina produces gearboxes, axles, trucks and buses and employs 700 people. Brazil's Sao Paolo plant, with 2,100 workers, manufactures engines, and cabs as well as complete vehicles.

Latin America is an important market for Scania - Brazil tops the sales table for heavy trucks and buses - and looking after the flow of components into production is vital.

Production Challenge

With production completely driven by customer orders, Scania's strategy is to locate final assembly as close to the customer as possible.

But many of the components used in South America are sourced from Scania's 550 European suppliers.

The challenge for KN as the logistics service provider is to maintain the regular transatlantic flow of materials from all these European suppliers and at the same time, provide a fast-track service to cope with stock shortages and rush orders.

The System

The workflow is easy enough to explain, but KN understood that operations like these stand or fall by the technology and systems used to support them. The recent move to a larger

The Service Provider

Kuehne and Nagel are ideally placed to provide this type of global service. Established in 1890, they now offer worldwide forwarding and logistics services from over 600 branches in 90 countries. In Europe alone they manage 1.5 million square meters of warehousing.

KN's answer was to set up a dedicated consolidation warehouse in Antwerp, close to the port for the regular ocean service, and within easy reach of Brussels airport for airfreight shipments.

This warehouse receives deliveries for South America from 450 suppliers located across Europe, ranging from Spain and Portugal in the West to Poland and Slovenia in the East.

After arrival, some goods are repacked to minimise damage in ocean transit, and small packages are assembled into 'combi pallets' to simplify handling. Seafreight goods are then loaded into containers at the warehouse while urgent goods are waybilled and trucked to Brussels Airport for air express delivery.

warehouse gave them the opportunity to implement a new streamlined process based around their WMS from DCS Transport and Logistics.

CIEL-FW is KN's name for TWS, the third-party warehousing module of the DCSi Logistics package used by KN to manage their forwarding operations worldwide.

From previous implementations KN knew that this flexible and parameter-driven system would provide a solid base for the project.

Case Study

Some ground rules applied from the outset. The automotive industry uses a standard 'Odette' label to identify parts in transit, and this label had to be scanned during the receiving and outbound legs to keep control of the goods. The Odette label has barcodes not just for part number and quantity, but also for supplier, weight and destination, making it possible to use a single label for scanning at each point of the supply chain.

The existing fax communications between Antwerp and South America had to be upgraded to full EDI transmissions running through KN's I-Broker hub in Hamburg to ensure timely and complete information flow between Scania, its suppliers and the manufacturing plants.

Full control of product status, whether held, damaged, or repacked was key to providing a quality service to the customer.

Pre-Alert

The story starts a day or two before the goods arrive. Each of the 450 suppliers notifies Scania electronically of the delivery into KN's Antwerp warehouse. After updating their own production systems, Scania consolidate the pre-advices and pass them to the KN warehouse. Here they are processed by CIEL-FW to create inbound orders awaiting the arrival of the goods. Inbound orders can also be entered or corrected manually if necessary.

Up to 20 receipts, as many as 1000 pallets, may be processed per day. On arrival, the goods are matched to a pre-advice. If any Odette labels are missing or damaged they are printed on the spot by CIEL-FW. This is necessary because some of the smaller suppliers don't yet label their goods. Each package is then scanned to confirm quantity and condition before being allocated a warehouse location.

Push and Pull

Even if the goods arrive in perfect condition, they have to be quarantined for a period. This gives the manufacturing plants the opportunity to make an Airfreight Order for any parts that are urgently needed for production. These parts are picked from the holding area and made up into an airfreight shipment from Brussels Airport - a typical 'pull' operation. The plants order against the pre-advice, so the Airfreight Order is waiting for the incoming goods when they arrive.

At the end of the quarantine period, in the absence of any Airfreight Order, the goods are containerised by destination and shipped by sea from Antwerp - a 'push' operation.

Steering for Success

Due to the powerful combination of EDI and RF handling, the operation is largely automatic. When the goods go through the inbound scan, the KN operator is directed to take them to the correct location - the Airfreight area for urgently needed parts, the repack or damages area for special handling and holding areas by country for the rest.

At intervals during the day, the open Airfreight Orders are released for picking.

If the parts are in the warehouse, they are allocated - even if they are already planned onto a container load. If not, the order stays open in CIEL-FW until the parts arrive.

Repacking

Extra protection during ocean transit is not the only reason for repacking. The operation is also streamlined by combining a number of packages for the same destination onto a single pallet.

CIEL-FW handles all the repacking via RF, maintaining a complete list of pallet contents and printing a new pallet label on completion. The repacked pallets can then mixed with normal pallets into outbound loads.

Loading

With up to 7 containers leaving the warehouse each day, KN wanted to use RF terminals to plan a container or airfreight load in advance of the physical loading. This is also managed within the system, providing the operator with a full set of RF panels for simulating, planning and confirming loads.

A final scan as the goods are loaded into the container is used to check that they are bound for the right destination, and a single shipping confirmation then moves the goods to the next point in the supply chain.

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The Benefits

Within a month of going live, the benefits were starting to flow. Here Udo Bauersachs, the Worldwide WMS / IT Vice President for KN Contract Logistics talks about the implementation.

'The major benefits were error-free pallet handling, no paperwork in the warehouse, and complete visibility of the goods at every stage'.

'For Scania, we have provided a stable and reliable system, with the lead time reduced dramatically and errors down almost to zero. For KN, CIEL-FW gave us easy handling, fast stock overview and simple EDI exchange with the customer.
Imagine being able to operate a complete warehouse with a wireless laser scanner, and that you can follow up every single handling online on your screen. That's the reality of what we have today.'

Six months down the line, with the whole process running smoothly, KN are now looking to build on this success by extending the concepts into other areas.

'We are already looking to install the same system for another Scania project with a different goods flow, and also for other warehouse customers'.

Watch this space !

Case Study

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