

Kuehne + Nagel's Portal Reduces Administrative Workload to Focus on Adding Value for Customers

Challenge

In support of its contract logistics and supply-chain management activities, Kuehne + Nagel Logistics offers total logistics planning, control and execution services, which are designed to turn its customers' logistics into a competitive advantage.

Information and communication technology (ICT) plays an important role in improving Kuehne + Nagel's operational efficiency and effectiveness, and that of its clients.

One such client is Unilever, a global manufacturer of Fast Moving Consumer Goods (FMCG). Crucially, the cornerstone of Unilever's customer service philosophy is the assurance it offers retailers that Unilever always delivers what it promises, and on time. That is why Unilever turned to Kuehne + Nagel Logistics in 2008 to help it improve its lead times and order processing time.

Considering the complexity of the logistics involved and the time available, this was somewhat of a challenge to achieve. "Unilever has to reconcile its pending orders with available stock," says Joost Hupkens, information services project manager at Kuehne + Nagel Logistics. "In the case of a shortfall, stock allocation is based on a predefined order-fulfillment priority list."

Solution

Kuehne + Nagel Logistics decided that automating and optimizing order management and stock allocation would improve lead times (by reducing stock-allocation and picking times) and eliminate errors, as requested by Unilever.

Kuehne + Nagel Logistics had initially considered implementing this functionality into its existing warehouse management system (WMS), but then decided it was not viable. "We dropped this idea

because we have several warehouse management systems, which would have meant multiple implementations," says Hupkens. "We decided the solution was a single, stand-alone application, which was capable of communicating and exchanging data with external systems. We chose the Mendix development platform because it offered the simplicity and ease-of-use we were looking for."

In late-2008, Kuehne + Nagel Logistics brought in CAPE Groep, a Dutch IT and management consultancy active in the transport and logistics sector, to implement the online, real-time Order Management Portal.

Reflecting on the choice of development platform, "Mendix allows you to quickly and easily model your business processes and the underlying business rules, but without having to write computer code," says Dennis Brugging, business consultant at CAPE Groep and manager of the Order Management project. "I have some experience developing applications under Microsoft .net. Now, that is programming. On the other hand, what we did in Mendix was business modeling."

Results

The Order Management Portal, which has the Kuehne + Nagel house-style with its familiar look and feel, went live in April of 2009. It was delivered in six months and within budget.

Unilever sends its orders to Kuehne + Nagel Logistics' warehouse management system in the form of standard electronic data interchange (EDI) messages. Following some initial processing, the system sends the Portal order details and related current stock levels input to the automated allocation process.

Using a complex set of business rules, the Portal then determines which goods, and in which quantities will be allocated for every order line. An

audit trail is maintained during the allocation process, logging the computation time and missing items.

Following the allocation, an electronic message is sent back to Unilever with the 'provisional' a location details. At this point, Unilever can either 'firm' the allocation or adjust it manually. In either case, the final allocation is returned to the warehouse management system, which updates its database accordingly, and stock picking can begin.

Stock allocation time has dropped significantly. "The elapsed time between receiving the last order and the start of stock picking has been reduced significantly," says Brugging. This in turn improves delivery times and provides Unilever customers with timely delivery information."

In addition, lead times have improved in another way: "The Portal can round-off stock allocation to the nearest layer within a pallet," says Hupkens. "This means that stock picking can be fully automated by using the layer picker, saving time and effort."

And lead times are set to drop even further, once the ultimate objective of the Portal—to fully automate the allocation process—is achieved.

" The elapsed time between receiving the last order and the start of stock picking has been reduced significantly. This in turn improves delivery times and provides Unilever customers with timely delivery information."

Dennis Brugging

Business Consultant / Project Manager
CAPE Groep

About Kuehne + Nagel

Kuehne + Nagel Group is a global provider of logistics services, with offices in over 100 countries. The company employs over 55,000 people and generated a turnover of €14.5 billion in 2008.

Kuehne + Nagel Logistics BV, the group's Dutch subsidiary, has a workforce of 1,700 and ranks among the top three providers of sea and air-freight services in the country. Its 350,000 square meters of warehouse space places Kuehne + Nagel Logistics among the top five players in contract logistics. And with more than 50 percent of the goods entering the European Union passing through the sea and airports of Rotterdam and Amsterdam, Kuehne + Nagel Logistics is well-positioned to grow.



Mendix helps enterprises achieve their digital goals. Our digital innovation platform empowers customers to bring new products to market, digitize customer engagement, and automate unique business processes. Facilitating an iterative, collaborative approach, the platform brings business and IT together to build and deploy innovative applications at the speed of ideas.

A recognized market leader, Mendix is helping hundreds of customers across dozens of industries achieve exceptional results. For more information, visit www.mendix.com and follow us on Twitter [@Mendix](#).