

Visibility in house: Volvo Cars counts on IBM On Demand Global TMS

When the Chinese group Geely became controlling shareholder in 2010 of Volvo Cars, the Swedish car manufacturer decided to radically change its logistics strategy. If Volvo Cars wanted to stay active in the highly competitive car market as an independent entity within Geely, expertise had to be developed in all strategic activities. Thus also in the logistics of finished vehicles. The majority of logistics activities, both inbound and outbound, used to be outsourced to a logistics service provider. Within a year, the complete outbound process had to be insourced: processes, operations, employees and IT. For that last part Volvo Cars trusted on IBM and CLX Logistics for the implementation of a TMS (Transport Management System) as a SaaS solution (Software as a Service).

“When Geely came on board, of course there was a search for synergy within the group, although we were able to keep operating in a largely independent manner. That’s why we decided that as an independent Swedish OEM within the group we no longer wanted to outsource large parts of strategic supply chain activities. We wanted to obtain complete visibility in the logistics process in order to be better prepared for growth, especially in the Chinese market. A prior study showed a saving potential of tens of millions of euro’s, so the green light was given for insourcing the logistics of finished cars”, Jonathan Converse, head of operations and planning at Volvo Cars, explains the context.

On August 1st, 2012, the complete project had to go live. If at that day the processes, operations, employees and IT support were not completely ready, Volvo Cars would no longer be able to ship cars from the factory. So there was little time for slack.

J. Converse: “Originally we hoped to take over the TMS from our former logistics service provider. When we learned that that wasn’t an option, we had to look for a new solution. We immediately noticed that there are very few complete software packages on the market. The logistics of finished cars is obviously not just about the transport. There is a whole process around it in which capacity planning and visibility play a big role. We contacted 8 parties of which 7 immediately said they were not able to help us. One of them said they wanted to give it a try, IBM.”

Complete context

Volvo Cars ships some 450,000 cars around the globe on an annual basis. Of this total amount, 350,000 reach their destination via overseas transport. The most important overseas markets of Volvo Cars are the U.S., China and the U.K. In total Volvo Cars ships to approximately 6,000 dealerships in 110 countries.

“The context in which the TMS had to operate was thus all but simple. The TMS had to be integrated internally with no less than 26 systems, from order management and production planning to procurement and financial systems. There are 6,000 dealerships, but due to the high post-production complexity - often additional services are added after the production of the cars, such as equipment for police or emergency service vehicles, and other extras - the total number of routes-to-market is close to 35,000. All of them had to be installed in the TMS. In addition, Volvo Cars not only manufactures sedans, but also SUVs (sports utility vehicle), meaning that during the transport selection also the different heights have to be taken into account”, Mike Skinner of CLX Logistics Technologies, the implementation partner of IBM, explains.

Every part of the route of a car, from the production and possible additional service centers to the ports and the final destination (via road transport), also has its own component in the TMS with respect to carrier management, pricing and contracts. For the global distribution network of Volvo Cars that implied that 30 new transport partners had to be brought on board.



“Visibility is of crucial importance for Volvo Cars”, Skinner knows. “There are different variables that may have an impact on the lead-time of a car. In order to be able to clearly inform the final customer when his car will be available, during every intermediary step a departure and arrival message needs to be created so the car can be followed throughout the complete chain. Next to that, that visibility is not only important for the final customer, but also internally for Volvo Cars itself. The arrival message of the carrier at the final destination in the TMS is at the same time also the trigger for the self-billing process in SAP. This also works as an extra incentive for the carriers to actually guarantee the expected visibility.”

Time pressure

CLX Logistics faced a number of serious challenges during the roll-out of IBM’s On Demand Global TMS at Volvo Cars. Not only because still quite some additional functionalities had to be developed, but also due to the required translation functionality for the 120 EDI messages that had been developed between Volvo Cars and its logistics service provider throughout the years.

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M. Skinner: “The 26 internal systems that needed to be integrated with, the 30 transport companies for which interfaces had to be provided and the 120 EDI messages in the complete distribution process in itself already were a very big challenge. In a SaaS environment normally the solution is being sold ‘as such’, but in this case still a lot of extra functionalities were required. As well as quite some integration services. That all of this had to be realized within a very tight deadline, did not make the challenge any less. On the other hand, that tight deadline does ensure that everybody is very engaged and focused on the project. Delay was clearly not an option. The factory would restart after the summer holidays on August 1st, so everything had to be ready. If not, no cars could be distributed and also no invoicing to the dealerships would be possible.”

According to Jonathan Converse the SaaS model made an important contribution to the timely completion of the project. “With a traditional tool months would need to be spent just on discussing the architectural guidelines. Most of those types of challenges during a new software implementation are covered by the SaaS model. I don’t think

any other system could have gone live within less than 5 months”, he believes.

Solid basis

The results speak for themselves. The expected savings have been exceeded with a factor of 5. “We monitor the number of issues that dealerships report to the service desk and a year after the go-live there are no more than 5 per week. That proves that the system works and that the dealerships have confidence in it. So we not only reduced costs but also significantly improved our service level. Of course some things went wrong during the implementation, but that is almost inevitable in a project of this size. A very important lesson we learned, is that in the whole organization the importance of master data has been terribly underestimated”, according to Converse.

At this moment Volvo Cars is in the stabilization phase of its insource exercise. Now the basis has been established, the focus has shifted to further optimization possibilities. Also in the IT area different projects are still on the agenda. “I’m thinking in that respect for instance about the integration with all sailing schedules of the ocean carriers which enables an automatic allocation and about the automatic confirmation via EDI of capacity requests and confirmations by carriers. But the first big optimization exercise has been completed, everything that follows is fine tuning on a solid basis”, according to Converse.

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