

Real-Time Transport Optimization for ABX LOGISTICS

“I would never again want to switch this system off.”

Christian Tremel, Dispatcher, ABX LOGISTICS
(answering the question how he rates the overall system)



Customer

ABX LOGISTICS (Deutschland) GmbH
(Duisburg, Germany)

Summary

ABX LOGISTICS (Germany) needed a software solution to optimize the utilization of its transportation capacities in order to save costs.

Whitestein Technologies' LS/ATN puts ABX LOGISTICS in a pole position to benefit from the many opportunities throughout its highly distributed and dynamic transportation network.

Key Benefits

- Automatic dispatching and real-time event handling
- Significant reduction of transportation costs
- Around 30% improvement in process efficiency
- Dispatcher training time of less than 4 hours
- Smooth integration with existing legacy systems
- ROI well below 12 months

The Customer

With a total staff of close to 10,000 and 375 offices in 30 countries, ABX LOGISTICS is one of the world's leading transport and logistics service providers.

Headquartered in Belgium, the ABX LOGISTICS Worldwide group offers its international customers a full portfolio of one-stop-shopping services, spanning the whole transport and logistics value-added chain.

ABX LOGISTICS has secured itself a place among the forwarding and logistics industry leaders. It ranks in the top five in the European road sector and the top 15 in the worldwide air & sea sector.

The German subsidiary, ABX LOGISTICS (Deutschland) GmbH, is the first user of the group's Transportation Optimization Solution (TOS) and contributes around 30% of the total group revenue.

The Business Opportunity

According to the company's philosophy "Think Global – Act Local", around 30 locations provide individual services to their local customers.

Every day the dispatchers of ABX LOGISTICS in Germany manage several thousands of orders and several hundreds of trucks within the national full and part truck load sector. Due to the cost structure in the road transportation business (e.g., diesel costs, road tolls) it is more important than ever to optimize the utilization of the transportation capacities and reduce driven-empty kilometers as much as possible.

A careful analysis of the flow of goods detected significant synergies and potential for optimization. To exploit this potential it became immediately clear that a key step would be to network the separate locations using an intelligent software solution.

The Challenge

Logistics dispatching is constantly affected by ad-hoc orders or short-term order changes from customers. Despite this challenging situation, the goal is to increase the utilization of the planned tours and to increase the number of round-trips and back-trips. The required software solution had thus to be able to deal with incoming events in real-time within a live operation environment.

Further significant requirements in this context are as follows:

- full visibility for all users,
- exploitation of the potential for global (system-wide) optimization,
- simplification and standardization of dispatching and settlement processes,
- immediate reaction to events such as order changes, order cancellations or other plan deviations,
- generation of up-to-date business figures to ensure highest quality of service.

The Solution

The overall solution, based on *Whitestein Technologies' Living Systems® Adaptive Transportation Networks (LS/ATN)* product for logistics management and optimization, covers all of the above stated requirements to their full extent.

Dispatching

The software agents that are supporting the dispatchers with optimization tasks follow a bottom-up approach. They first search for local optima and then, in a second step, enlarge the search space to find the global optimum.

Execution

In addition to dispatching optimization, *LS/ATN* automates the selection of sub-contractors and their assignment via fax generation with simply two mouse clicks. Easy transfer of orders to two freight exchanges is also possible with only two mouse clicks.

Tracking

During transportation, *LS/ATN* periodically receives status messages via SMS to track the progress of the transportation orders. Each event and its implications are automatically checked and, in the case of problems, displayed to the dispatchers.

Billing

To finalize a tour a dispatcher confirms the complete and correct fulfilment of a transport order and releases it for billing.

The solution with *LS/ATN* links all local and distributed dispatchers via a network of software agents. This allows global optimization while simultaneously offering customized views for local tasks to serve the customers individually.

Benefits and Advantages

The deployment of *LS/ATN* helped *ABX LOGISTICS* to optimize the utilization of its capacities. Specifically, it resulted in:

- ❑ automated route creation (dispatching),
- ❑ 30% increased process efficiency through software agent-supported communication among the dispatchers,
- ❑ significant reduction of transportation costs by automatic creation of back trips and round trips and by combining part loads,
- ❑ full transparency for customers, partners, dispatchers and management,
- ❑ higher quality through automatic monitoring of service level fulfilment and immediate handling of plan deviations and other events,
- ❑ detailed cost transparency.

“Whitestein Technologies has shown extreme flexibility and by that significantly contributed to the succes of this project.”

Andreas Möllenbeck, Head of FTL/LTL, ABX LOGISTICS (Germany)

About Whitestein Technologies

Whitestein Technologies is a leading innovator in the area of software agent technologies and autonomic computing & communications. *Whitestein Technologies'* product offering includes advanced solutions for the telecom, logistics, financial services, and business process management domains, as well as a comprehensive middleware for the development and operation of autonomous systems. *Whitestein Technologies'* customers and partners include leading global enterprises in the above markets, as well as technology companies, system integrators, universities, and other research institutions.

Whitestein Technologies was founded in 1999 and is privately held. The firm is headquartered in Zug (Switzerland) with offices in Zürich (Switzerland), Donaueschingen (Germany), and Bratislava (Slovakia).

Technical Footprint

- ❑ Server: OpenVMS
- ❑ Clients: Windows
- ❑ Web-Server: Tomcat
- ❑ Interfaces: XML

Third-Party Products

- ❑ Geography: PTV eServer
- ❑ Database: Oracle

Why LS/ATN Was Chosen

Andreas Möllenbeck, responsible for FTL and LTL states the following main reasons for having chosen *LS/ATN*:

“LS/ATN offered the best price performance ratio out of 14 solutions and also proved to automatically create the best optimized routes.

Whitestein Technologies as the leading provider of software agent technology is one of the first who has made this innovative technology available for logistics.

The team has proven its capabilities and extraordinary commitment already during the RFP process.”

Contact

Whitestein Technologies AG
Tödistrasse 23
8002 Zürich
Switzerland
Phone +41 44-256-5000
Fax +41 44-256-5001

E-mail info@whitestein.com
<http://www.whitestein.com>

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