

Case Study

BLG Handelslogistik: inconsoDOM

Quality and high tempo software and IT infrastructure powered by inconso



Customer profile

BLG Handelslogistik stands for customer oriented planning and management of complex logistics processes along with the management of all goods and information flows. Dedicated project teams with their logistics know how accompany the customers from the tender and the process description on-site through to the Go-Live. As a fast growing business area of the BLG Logistics Group, BLG Handelslogistik is one of the leading contract logistic providers in Germany. Customers of BLG include such known companies as IKEA, adidas, Konica Minolta and Griesson de Beukelaer. For Tchibo Logistik, BLG Handelslogistik built and operates the largest high bay warehouse in Europe as well as the accompanying distribution center.

The project

“Every week a new world” – The long running motto of Tchibo GmbH gives an idea about the logistics challenges in operating the far-reaching procurement and distribution network that changes the complete assortments regularly at approximately 40,000 sales locations. Through the successful implementation of this business model, the quantities that the logistics has to manage has doubled within a couple of years. This is the reason why Tchibo focused on achieving a flexible, scaleable and future oriented network that enables a permanent improvement of the logistics services while lowering the logistics costs. With this approach, Tchibo

is supported by BLG Handelslogistik and inconso. The decisive steps were the replacement of a network of small supply and distribution warehouses with a central high bay warehouse in Bremen and a few, flexible-use regional distribution centers and the standardization and integration of the remaining logistics locations.

Tchibo commissioned BLG Handelslogistik with the planning, building and later operation of the new central warehouse. In Bremen, three high bay blocks and two multi-function halls were built. The planning, setup and operative start of the entire information technology – PCs, periphery, RF, RFID – was the responsibility of inconso as a general contractor. On the basis of inconsoWMS X and inconsoSCE, inconso developed and implemented the systems for the efficient control of the entire logistics network and the individual logistics locations.

The goals

The new central warehouse is the cornerstone of the new logistics structure for Tchibo. Thanks to the standardized, comprehensive IT solution, the warehouse is seamlessly integrated in the logistics network. Most of all, the corresponding new orientation should result in more leeway for the marketing through improved logistics efficiencies. In order to reach the sub-goals such as reducing the logistics parts costs, zero defect picking while drastically reducing the processing times and obtaining a >99% delivery quality, high performance, availability and fail-over security of the systems was and is indispensable.

The Solution

Partnership as strategic cornerstone

Efficiencies, quality and flexibility of the logistics services were secured by Tchibo through partnering with a specialized service provider, namely BLG Handelslogistik. The high outsourcing part of 68% of the logistics value chain adds to the success of the business model because Tchibo places importance on the buildup of a long-term, partner oriented relationship. This approach has also proven itself in the cooperation with BLG Handelslogistik and inconso: Tchibo sees them as a cornerstone for further improvements in the availability, meeting deadlines and efficiencies and transparency in the entire process. The modular extendibility and the location network along with the IT solution play a decisive role here. The many logistics challenges in the retail industry can only be mastered with a high performance information technology. To understand, optimize and realize the tasks, goals and processes of customers in differentiated, high performance and flexible system solutions are the purpose of the partnership that has proven itself over time in the example of Tchibo, inconso and BLG Handelslogistik.

Uniform management of a far-reaching network

Tchibo realized their integrated approach through a tight coupling and standardized interaction of the IT systems. All delivery orders are created in the SAP Retail system. The logistics specific data are then processed in the central inconsoDOM for the entire network. Using the distribution structures represented in the ERP system, the creation of the routes takes place in inconsoDOM that then also determines the picking sequences in the distribution centers.

inconsoDOM transfers the orders directly to inconsoWMS at the regional distribution centers and continually receives the status messages. All warehouse, picking and transit inventories are accessible in a consolidated inventory view. The collection and processing of the data enables a systematic monitoring of processes and productivity KPIs and a benchmarking of the individual locations with detailed reporting.

The largest high bay warehouse in Europe

The dimensions of the new central warehouse operated by BLG in Bremen is reflected in the quantities dealt with. More than 6,000 pallets with articles for daily use are handled every day and are sent to the customers. For this, two high bay blocks measuring each 144 meters long, 71 meters wide and 42 meters high and 2 long multi-function halls were built on a 120,000 square meter space in only 16 months. Three years later, a third block with nine additional aisles was added. This increased the total capacity of the high bay warehouse to 200,000 pallet locations.

High availability and fail-over security

As a general contractor for both the software and the IT technology, inconso planned, delivered and implemented the complete IT hardware – from the server cluster, terminals, MDE and RFID through to the cabling. The site survey was extended to the entire outside yard. For this, a total of 32 access points based on an 11 Bit bandwidth were distributed across over the 21 hectare yard and brought into operative use. Two kilometer of fiber optic cable connects both of the HP cluster nodes and five additional server systems in both data centers in a ring to the gate entry and the seven support points. In order to reach the required high availability, all the functions were set redundantly. Each individual part can fail or each cable connection can be damaged, the warehouse will still operate.

Quality and high tempo

To achieve the high goals of processing times and quality, the entire high bay warehouse has been set up with streamlined and seamless processes. Even the inbound part is planned far before the warehouse entrance and is controlled by an integrated management. Each delivery must be announced in advance by the responsible carrier. The carrier receives a time window from inconsoYMS within which a quick processing is assured. At the gate, all vehicles and containers are identified with an active RFID transponder. The driver receives a waiting position or directly assigned an unloading ramp via his radio frequency terminal that is linked to the transponder ID or the forklifts are also equipped with transponders and the ramps and unloading points of the conveyor technology have RFID readers installed. This enables a complete quality control during the entire operative processes.

Cartonized goods are taken over by palletization robots in the goods receiving area. An electric hanging rail transfers the pallets to the automatic high bay operating equipment. The location assignment in the 31 high bay aisles has already taken place so that the double-deep locations are optimally occupied with the same article to avoid time-consuming block reallocations.

In the integrated picking center with approximately 20,000 m² space and more than 20,000 pallet locations, picking takes place on two levels. The upper level is reserved for push picking in which up to 110,000 sales units and 6,000 colis can be picked per day. From here, BLG delivers to the Tchibo sales locations with the planned standard assortments. The demand from the stores is services in the pull picking on the lower level. On the peak days, 265,000 sales units are picked and load in the goods issue area here. The replenishment for the picking is automatically done by the pallet conveyors and the distribution carts.

The first “fully automatic” warehouse management system

System supported means quality and high speed going hand in hand. All the processes in the warehouse and distribution center are managed and monitored by inconsoWMS. As a high availability, highly flexibly and open system, it managed the available resources and helps the operative personnel to be utilized effectively and in a transparent manner. With the connection of the third block and the management of additional logistics locations, it has been proven that the future demands can be be met and that the system is flexible. With this solution, Tchibo was able to meet their logistics goals completely, sometimes even outperforming the expectations. For these services, Tchibo was

recognized in 2004 with the German Logistic Prize. BLG Handelslogistik and inconso continue to build up their cooperation even more for Tchibo and for a growing numbers of customers.

At a glance

Customer

BLG Handelslogistik

Project goals

- Drastic increase of efficiency through building of new central warehouse and its information technology integration in the reorganized logistics network

Products and Solutions

- inconsoDOM
- inconsoWMS
- inconsoYMS
- inconsoWCS
- RFID
- Installation of the complete IT infrastructure as a general contractor

Main benefits for the customer

- Optimization of warehouse network
- High availability and fail-over security
- Minimization of processing times

“Every week a new world” – The long-running motto of Tchibo GmbH gives a glimpse into the logistics challenges of the farreaching procurement and distribution network.

