

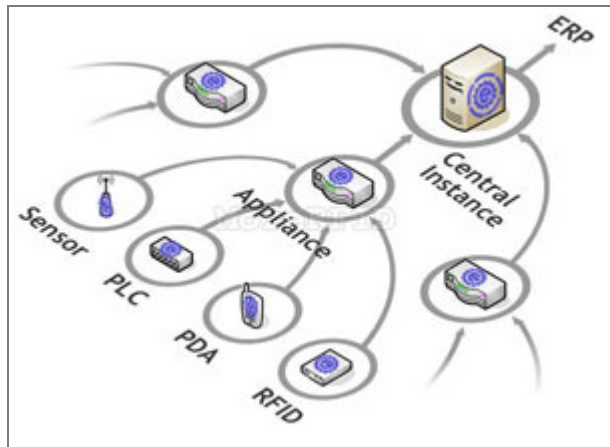


## The World's Largest Automotive Supplier Bosch Uses RFID for the Optimization of Manufacturing and Logistics Processes

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Munich-Ismaning/Stuttgart, Germany, December 18th, 2008. Robert Bosch GmbH, part of the Bosch Group and leading global supplier of technology and services in the areas of automotive and industrial technology, consumer goods, and building technology, has selected noFilis, one of the world's leading providers of Device Management Technology, for the optimization of manufacturing and logistics processes based on AutoID technologies.

### Lean production, innovation and optimization of logistics processes are part of the Bosch strategy



"Companies that streamline their workflows, manufacturing and logistics processes can run their business very cost-effective in the mid and long-term", says Thomas Reitelbach, Application Development Production Logistic, Robert Bosch GmbH. "RFID helps us to implement the 'lean-production-philosophy' in our various locations." In two German sites, Bosch already implemented RFID for data capturing based on noFilis CrossTalk and SAP Auto-ID Enterprise.

### RFID enabled Kanban processes in the German plants Bad Homburg and Bamberg

Pioneer and first - mover for the realization of IT-solutions for the 'lean - philosophy' was the Bosch plant in Homburg. In this plant for diesel systems Kanban is used for production replenishment processes since a while. The trigger for production planning and execution is the demand of the receiving party, which is the basis of the Kanban principle. "We see a huge potential in RFID", says Reitelbach. The aim of the first project was to automate the production impulse and trigger by replacing the manual barcode scans and data inputs with an automated material flow control system. "The manual scans were very time- und resource - consuming. RFID helps us to receive realtime transparency concerning our manufacturing and internal logistics processes", Reitelbach comments. The employees in Bamberg receive a box with semi-finished goods at the end of the various production lines and re-pack these boxes in a second container. All relevant information, e.g. material master, amount of the material, date and time, is gathered automatically with the help of 32 HF RFID read points and reported to the ERP system - without the need of manual scans or data input. The plant in Homburg uses "intelligent postboxes": kanban cards of empty containers are scanned with UHF RFID at 36 postboxes which automatically trigger the relevant replenishment process in the nearby located warehouse and the SAP system. Bosch was able to reduce buffer stocks in the production area dramatically, as well as the planning and logistics execution of the replenishment process could be optimized. "These points of improvement save a lot of money for Bosch. In the meantime the buffer locations in our production areas are pretty empty - but we never have production stops due to running out of stock", Reitelbach points out.

### noFilis CrossTalk and SAP Auto-ID Enterprise form a scalable solution

"After Bosch decided to use RFID for the optimization of business processes, we needed to evaluate the best-suitable IT system landscape. The new software layer was supposed to configure, manage and monitor decentralized AutoID read points with the ability to buffer read events locally in case there are network connectivity problems", says Reitelbach. "We searched for a solution which makes the handling and integration of new AutoID technologies very stable, easy and reliable." The seamless and native integration into the existing SAP backend and system scalability were other very important selection

criteria, as Bosch plans to conduct global RFID rollouts based on the positive experience in the first two pilot plants. "After an intensive vendor selection, we finally decided to implement noFilis CrossTalk and SAP Auto-ID Enterprise, because this solution stack meets our expectation in the best possible manner. The future-oriented software layer consists of a best-of-breed device management and data capturing solution and of course the standard and native SAP integration capabilities. noFilis fills the edgeware gap in the SAP landscape perfectly." The project duration from the decision to choose SAP and noFilis until the go-live in Homburg took less than four months, as the installation in Homburg started in April and went live beginning of July. "This very short project duration was possible, because Bosch supported us with a very skilled and competent project team consisting of various departments, responsibility areas and plants. The large existing number of joint SAP and noFilis projects was helpful as well, because the consulting experts on both sides are very well aligned", says Patrick Hartmann, Global Sales Director of noFilis. "The second project in Bamberg emphasized this proven setup, Bosch was able to go-live after less than two months in August."

#### **Ambitious global rollout plans**

The strategic Bosch AutoID software layer consisting of noFilis CrossTalk and SAP AutoID Enterprise has already shown great potential and benefit. The RFID technology and the software layer work very stable and reliable. "Therefore the RFID rollout in Homburg and Bamberg will be expanded in the near future", Reitelbach points out. "But these are only the first steps. In 2009 we plan to RFID enable more plants. 'Lean production' is one of our major strategic goals. The global utilization of noFilis CrossTalk and SAP Auto-ID Enterprise is the way to achieve this goal."

#### **About noFilis:**

noFilis, a software company with in-depth expertise in RFID, AutoID and sensor technology, focuses since late 2004 on the development of CrossTalk. The noFilis Device Management CrossTalk is a state-of-the-art solution stack for transforming business rules/commands into physical device tasks. The Edgeware takes care of a transparent and smooth integration of smart devices into a distributed data network. Besides offering one of the leading solutions for device integration and data capturing, noFilis is member of EPC Global.

#### **About Bosch:**

The Bosch Group is a leading global supplier of technology and services. In the areas of automotive and industrial technology, consumer goods, and building technology, some 271,000 associates generated sales of 46.3 billion euros in fiscal 2007. The Bosch Group comprises Robert Bosch GmbH and its roughly 300 subsidiary and regional companies in over 50 countries. This worldwide development, manufacturing, and sales network is the foundation for further growth. Bosch spends more than three billion euros each year for research and development, and in 2007 applied for over 3,000 patents worldwide. The company was set up in Stuttgart in 1886 by Robert Bosch (1861-1942) as "Workshop for Precision Mechanics and Electrical Engineering."