

Full control

Success story – Project with primion Technology GmbH



Picture: www.scherbauer.de

Project goals

- Vehicle access control
- Locating and identifying vehicles and freight containers on the company site
- Reliable and tamper-proof passive transponder technology (without battery)

Challenges

- Monitoring a large area
- Public road intersecting company site
- “Hot-swap” implementation

Solution

- RFID-based monitoring system with transponders on the windscreen and plastic tags on swap bodies and trailers

Advantages

- Flexible and secure access control
- Precise locating
- Permanently up-to-date database
- Standardised and future-proof technology

Scherbauer is a renowned forwarding company in Eastern Bavaria that relies on system integrator primion Technology for the identification of tractor units, trailers and swap bodies – and on intelligent long-range solutions from deister electronic.

Modern supply chain management in a traditional company: Founded in 1901, Scherbauer Spedition GmbH from Neutraubling in East Bavaria has become one of the leading logistics and forwarding companies with a Europe-wide network. The company operates one of the largest and most modern logistics terminals in the Regensburg area on a site approximately 70,000 m² in size and with around 280 employees.

One of forwarding company's core businesses is warehouse logistics. Here, great importance is attached to securing and protecting goods against theft, sabotage and manipulation. Equally important is transparent management and control of the numerous comings and goings of vehicles – on a site intersected by a public road. All tractor units, trailers and containers must be fully traceable at all times. Scherbauer therefore opted for system integrator primion Technology. Once again, the experienced system house used components from deister electronic for this project: mature and future-proof transponder and reader technology that works passively, safely and reliably.

The functional requirements

The functional requirements were clearly formulated: Only authorised tractor units, vans, swap bodies or trailers should be allowed to enter or leave the company site. The system must trigger an alarm in the event of attempted tampering or unauthorised access. Where are the tractor unit and swap body located? When did they enter the site and where was the swap body hitched up? All this important information must be quickly and clearly available to dispatchers at all times. In addition, the system had to be implemented in a “hot-swap”.

For the control and monitoring of the entry and exit points on the vast company site, special structural alterations had to be carried out beforehand. Traffic islands were built and vehicle lanes were added. This allowed information about the whereabouts of tractor units and swap bodies to be reliably transmitted from the capture points to the access control system of the deister electronic's partner, primion Technology, for further processing.

The solution: RFID long-range technology

24/7 monitoring at the Scherbauer forwarding company is based on RFID technology from deister electronic. All vehicles were fitted with TPU 3082 RFID tags. ►

These self-adhesive windscreen transponders with integrated chip were placed in the same position in each cab. There are also transponders (UDC 160) fitted with a robust plastic housing on all swap bodies and trailers.

TSU 200 long-range readers installed at the site's entry and exit points capture the lorries' RFID data as they approach and forward it to a control centre for analysis by the prime WebAccess software. The software only opens the barrier at the exit point for identified and authorised vehicles; 1,000 master records can be managed simultaneously.

At the same time, the transponders identified on the swap bodies and trailers allow location tracking of the load carriers as they pass through the exit point. An interface to the import-export generator uses automatic number-plate recognition aided by video surveillance to compare the transponder data with the assigned number plate. This provides additional security – a prudent solution. ■



Self-adhesive windscreen transponder



Transponder for swap bodies and trailers



Long-range reader for entry and exit points

“With the RFID identification and access control system, we not only monitor site access, but also keep track of the status of loading and vehicles. Reliable and resilient transponders and the corresponding long-range readers have proven themselves to be excellent in practice.”

About primion Technology GmbH

For over two decades, primion has been working passionately on intelligent systems for access control, time and attendance, security technology and comprehensive hazard management. They draw their inspiration and motivation from the requirements of their customers. This enthusiasm has made primion one of Europe's leading companies in the field.



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About deister electronic

For 40 years, deister electronic has been an internationally modern and sustainably managed family business that stands for innovative and safe automation solutions. With five international locations, we sell our solutions worldwide and have a strong international focus. Our solution portfolio is used, for example, in the following applications: Long-range identification for access control, access control to buildings, automatic management of work equipment and valuables in electronic locker systems, dispensing and management of textiles for laundry and hospital logistics.



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