

Hand Held Products keeps German Rail's cargo on track

The latest mobile computers are revolutionising the art of data collection and transfer. A prime example is Hand Held Products' newest offering, the Dolphin® 9500, used by German Rail (Deutsche Bahn AG) to track the movement and consolidation of freight railcars throughout the company's extensive rail-yard system.

German Rail has one of the largest rail networks in the world, with connections to most large towns and cities throughout the country, as well as numerous cross-border links. One significant element of the company's operations is Railion Germany (formerly DB Cargo), part of the Transportation and Logistics division.

Railion Germany is the European Union's leading freight railway, with some 27,000 employees, working daily on 3,000 trains with 40,000 railcars. It co-operates with railways in other countries, and operates approximately 100 trains across Europe each day. Railion is currently involved in a Cargo Digital Data (CDD) communications project which seeks to streamline the movement of freight railcars.

Wagons entering German stations from other countries need to be connected to a different locomotive before they are re-routed to their destination. Each railcar has to be in the right place – so the company needs to check its origin, its destination, its load, and the wagon's physical status (including exits, wheels and brakes). This all happens within a short timeframe. If everything is correct, the railcar can be released.

Railion already had an application for this activity, running on its main system. However, the method it was using was outdated, and involved the use of walkie-talkies to communicate via a private network, plus some proprietary terminals for keying in the data on the individual railcars, and a private network for data transfer.

Upgrading the system

Mr Degenkolb, Railion's Project Leader, explains: "The private network we had been using was starting to close down. We therefore decided to upgrade our whole approach, and to move over to a GPRS system. This will be faster, more efficient, and will significantly reduce maintenance costs."

Following the European tendering procedure, Railion selected DB Systems GmbH (DBS) as the main contractor for the project. After looking at various data collection models from different vendors, the company chose the new Dolphin® 9500 from Hand Held Products, which was still under development. The 9500 is feature-rich, and boasts the latest technology, including an Intel® X-Scale processor and a Microsoft® Windows® Pocket PC platform. The units can be updated to incorporate a scanning engine with Hand Held Products' innovative imaging technology, Adaptus™, if the need for digital imaging arises in the future.

Mr Degenkolb says: "We chose the 9500 because it uses state-of-the art technology, and has very advanced functionality, offering both data and voice communications, a colour screen and GSM/GPRS capabilities. It is also very rugged, which is an essential feature, as the Dolphins will be used outside, in any weather – day and night. Our employees work in three shifts over a 24 hour period, and the Dolphins will be used throughout.

Developing the solution

With help from Railion and DBS, Hand Held Products made sure that the Dolphin's integration with the host environment was fully supported. Hand Held Products also worked closely with SBS (Siemens Business Services – an Hand Held Products global systems integration partner) to ensure the high quality deployment of the new system. The 9500 now has full GSM and GPRS capabilities. As a result, users can access information at any time, from anywhere.

Boudewijn van der Kroon, Hand Held Products Europe's Director of Strategic Accounts, says: "We were happy to take on the challenge of implementing the new Dolphin® 9500 in such a world-class competitive project, and are very proud to have been selected to deliver the mobile computing solution for Railion. Railion was very impressed by our application support and project management capabilities. We successfully managed and completed the project and overcame the challenges in close co-operation with the customer."

"We are delighted to be working with DB Systems on this project," adds Roel Vreeburg, Hand Held Products' Managing Director for EMEA. "DBS's full software development, systems integration, project management and field deployment services complement Hand Held Products' excellence in mobile computing technology."

Railion subsequently ordered 2,000 Dolphin® 9500s for use in 12 stations throughout the country. The company's employees will enter all the railcar data into the Dolphins. Several times a day, the units will be used as a mobile phone (for instance, if a brake pad is too thin, the employee can call for help or spare parts). The users can also receive instructions via the system. The information collected by the Dolphins will be sent over GPRS to the main system, resulting in real-time wireless communication.

Staff at Railion are currently being trained in the use of the Dolphins and the advanced CDD application. Full implementation will start in early 2004. Mr Degenkolb comments: "The new units are easy to use, and will make our system much more accurate and reliable, saving us both money and time. The new system also reinforces our emphasis on safety, by ensuring that the right railcars are always in the right place."

He concludes: "Ultimately, the Dolphins will help to streamline the movement of our freight railcars. If any issues arise at all, Hand Held Products provides continued project support, with excellent turnaround from its European Maintenance Centre."