ZETES CASE STUDY |M+R Spedag Group

Paperless on the road

Objective : distribution of goods in Switzerland from the manufacturer across the entrepot to the shop
Solution : MDE (Mobile Data Entry) solution with mobile terminals and WLAN
Results : • Faster distribution of goods
      • Transparent tracking of goods
      • Up-to-date information

Employing over 1,200 employees, the M+R Spedag Group is one of Switzerland´s leading logistics companies. With its own companies, the Group operates in 58 sites across 23 countries and has a worldwide network of affiliates.

Textile logistics is very different from handling and shipping general cargo. To ensure that 'ready-to-wear' garments and fabrics are delivered to the points of sale in perfect condition at the right time, more than just the appropriate infrastructure is required.
M+R Spedag Group AG won the contract to distribute textiles throughout Switzerland for a leading Swedish textile company. One of the prerequisites that had to be met was the ability to ensure uninterrupted tracking of the merchandise at all times. For this, the Zetes team divided the task into four separate processes and came up with an MDE solution using Motorola's MC3090 with WLAN capability.
The operator identifies himself on the mobile terminal by scanning in his ID barcode. The operator identifies himself on the mobile terminal by scanning his ID barcode. The MDE verifies the authorisation level and attributes of the operator against his recorded work profile.

1. Loading
At the Swiss distribution centre, the textile goods are picked to be distributed across Switzerland. The goods are placed in special containers ready for onward transportation before being loaded onto the shuttle lorries. Once the lorry is loaded it is closed and sealed with lead. The load check is performed by scanning the seal numbers and the barcodes of the individual packs. A cargo data file is then sent to M+R Spedag Group's FTP server by WLAN.

2. Unloading at the entrepot
The second stage of the process gets underway at M+R Logistik Service AG's entrepot. Upon arrival of the shuttle lorries, the corresponding data is loaded into the MDE by entering the seal numbers. The lorries are then opened and unloaded. The unload check is done by scanning the barcodes of the individual packs. Invalid or missing barcodes are immediately identified. Packs carrying the correct barcodes are placed into interim storage in the appropriate transshipment location. Once the lorries are unloaded, the unloading data sheet is sent to the server by the MDE.

3. Tour transshipment
After all shuttle lorries have been unloaded, the third stage of the process gets underway. The IT system plans and compiles the delivery routes, taking into consideration various parameters (delivery, delivery times, closing days, etc.). All route data can be loaded into the MDE by entering the relevant route number. The pre-delivery check is done by scanning the barcodes that are stored in the MDE. If a container is scanned that has not been assigned to that particular route, the MDE displays an error message. After all packs have been

scanned, the process is concluded with the MDE and a corresponding pre-delivery data sheet is sent to the server.

4. Delivery

The fourth and final stage of the process is the customer delivery. As the MDE used here is the same as the one used for the pre-delivery operation, no supplementary data needed from the server. Before leaving, the driver simply switches the MDE's function from pre-delivery to delivery, and upon arrival selects the shop that is being supplied. The delivery check is made by scanning the barcodes of the products to be unloaded. If any barcodes have not been assigned to the shop in question, the MDE displays an error message.

In the event of damaged packs, a reserve can be entered into the MDE. The delivery is confirmed by a customer signature at the bottom of the display screen. The shop number, date and time are automatically added and temporarily logged into the MDE as an image file (JPG). Upon completion of the delivery, the driver hands in his MDE for a route check. All scanner data and the corresponding image files are subsequently transmitted to the server.

During each step, the user can call up all relevant delivery details, e.g.:
  - Delivery date
  - Delivery time
  - Barcodes
  - Scope of delivery
  - etc.

Software and master data updates

Each time the start screen of the application is called up on the MDE, the server launches a search for new software versions and updated master data. If new versions or data are available, it is automatically uploaded to the MDE. If necessary, the system is rebooted with the latest version, ready and fully operational.

To ensure the unit displays the current date and time at all times, the data is automatically synchronized with the server.

Conclusion

The M+R Spedag Group project was awarded to Zetes in mid-September 2007. Amongst other things, the main challenge was to reliably implement delivery procedures by 1 November 2007 using the new solution. Following the roll-out and less than 4 weeks after the start of the project, Zetes began training the M+R Spedag Group staff. During the first 20 days of the implementation, 75,000 deliveries were scanned.

Now that there are no paper lists that have to be processed during the loading and unloading of the trucks, each of these procedures has been shortened by up to 20 minutes.

In addition to the safe and secure allocation of the deliveries, this time saving is one of the project's key benefits.

Hardware and accessories

- Motorola MC3090 (WLAN, Windows CE 5.0)
- 4-slot docking stations
- On-board vehicle battery chargers
- Motorola Access points at the textile traders and at the entrepot