Case Study | Workwear Management

Decentralized laundry Services

Challenge: Intelligent laundry dispensing cabinets
KEMAS, a Saxon company, is a leading provider of automation-oriented solutions based on RFID technology for customers and employees. These so-called self-service solutions are particularly useful for optimising workwear logistics. The aim is to provide employees with the right amount of workwear round-the-clock using UHF RFID technology and intelligent laundry dispensing cabinets while organizing the removal and return of clothes transparently and efficiently.

Initial situation: Lack of a proper control system
Providing employees with workwear always poses personnel and logistical challenges to a company. Central laundry services are often not manned round-the-clock, and machine-based systems cannot reach the same speed as central laundry services. Often, there are not enough clothing items available for all employees. This is due to different reasons. The result, however, always is dissatisfaction among employees. As a consequence, the daily dispense and return of workwear cannot be guaranteed. Both the personnel expenses and the time lost are factors that must not be underestimated. Hence, there is a need for better analysis and control of workwear management.

Solution: Transparency of the workwear textile flow of goods
By using RFID technology in the textile dispensing cabinets, the user can log in to the cabinet directly using an RFID employee ID card. After the authorization check, the system guides the user to the correct output compartments one after the other, where they can collect their clothes directly. All clothing items are tagged with a UHF RFID transponder and the compartments are equipped with intelligent Kathrein Solutions SmartShelf antennas and an RRU4500 RFID reader. All textiles are identified at the supply points during the processes of stocking, collection, return, and disposal. For the continuous management of the textile inventory, all information about the workwear items and wearer are linked to one another making the flow of the textile goods transparent. This enables the static detection of several transponders within one workwear issue and return process. New clothing items are issued after used clothes have been returned. The cabinets serve as a depot, and permanent inventory management is possible. The respective inventory is immediately visible in real time and can be used as an inventory check. Service providers receive separate access rights to stock the dispense cabinets with clean textiles. In addition, individual evaluation reports can be created in order to optimise the workwear management.

Result: Continuous inventory
Kathrein Solutions RFID technology enables continuous inventory and provides an overview of the textile inventory in real time. The distribution of workwear via intelligent dispensing systems also provides an overview of the quantities in circulation and enables to adapt the supply to actual needs. This way, intact and clean workwear can be guaranteed round-the-clock. The number of clothes in circulation can be reduced, which contributes to a significant improvement in efficiency and reduction in costs. Constant transparency and continuous documentation of the life cycle of the textiles are also made possible. Smartly combined, intelligent laundry dispensing systems reduce personnel time that was spent traveling and searching.

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