Challenge: The intelligent laundry depot

The Saxon company KEMAS 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 workwear administration. However, the optimisation of the dispensing process is a necessary process as much potential is still lost due to the high level of complexity. Holistic safety management, considering operational processes, is a prerequisite for hospitals to fulfill their care mandate and duty of care. This is the only way to protect and maintain patients' health and life.

Providing employees with workwear is a personnel and logistical challenge. The aim is to provide employees with the right amount of workwear round-the-clock using UHF RFID technology and intelligent laundry dispensing cabinets. This way, employees can use their time for their core tasks.

Initial situation: Manual handling

Central and manned laundry dispense services are still very common. However, these are often not open round-the-clock. Other systems may work automatically, but are far from having the same dispense time. In addition, laundry is often in short supply for employees. Different employee categories must be distinguished through different model variations. Consequently, the automated laundry dispensing cabinet needs to be able to identify every item of clothing. The entire laundry depot must be able to identify items of clothing and their stock. This way, workwear administration becomes an intelligent laundry depot, that is able to analyse shortages, peak times, employee habits, etc. and prevent negative effects.

Solution: The IoT solution masters the entire flow of textile goods, from stocking to disposal

With its extensive configurability, a room-based solution offers many possible approaches. The built-in RFID technology enables the reliable identification of all textiles. This IoT solution from Kathrein Solutions is simply installed in the respective room-based solutions, and used in conjunction with the ARU3400 RFID reader with its integrated WRA7070 antenna from Kathrein Solutions. The readers are further equipped with the Wide Range 70° antenna to ensure a high detection rate even when stocking the laundry depots. The prerequisite for this textile workwear management solution is that each individual clothing item is tagged with a UHF RFID label. This label is identified at the supply points during stocking, removal, return, and disposal. Through the simple configuration of the depots, the room-based system remains very flexible with regard to the dispensing conditions for the employees. The IoT solution described can be expanded technically and organizationally in various ways: Permissions, messages, reading points, data evaluations, and other functions can easily be implemented into the system.

Result: Intelligent workwear management system

Thanks to Kathrein Solutions RFID technology, the laundry management system makes a significant contribution to simplifying and rationalizing daily work. The availability of clean textiles round-the-clock is therewith ensured. Reliable and transparent data acquisition is guaranteed and allows optimal control of the use of textiles. At the same time, authorization management regulates all accesses to the depot. Therewith, the central laundry warehouse becomes an intelligent clothing depot. Moreover, a real-time inventory of the textiles is made possible at any time. Detailed reports about the life cycle of all textiles and simplified dispensing are further advantages of real-time transparency.