Enhancing Combat Uniform Logistics with RFID Technology

Manual processes and error correction increase costs and disrupt uniform logistics. Whether moving items from production to distribution or between bases, inefficiencies can impact readiness and visibility. Applying Lyngsoe Systems' Automated Validation Station™ (AVS), based on RFID technology, to your existing processes enables automated accuracy, real-time traceability, and reliable on-time delivery across the supply chain.

Lyngsoe Systems

Photo: Helene Sofie Thorkildsen / Forsvaret

Transforming the Danish Armed Forces' Logistics

THE CHALLENGES: LIMITED VISIBILITY & INEFFICIENCIES

The Danish Armed Forces lacked real-time visibility across logistics and supply chain operations, especially in transportation and equipment distribution. This has made it difficult to monitor product flow from production to distribution effectively. In addition, the Danish Armed Forces manually track and verify goods, which is both time-consuming and prone to errors. These inefficiencies result in delays, inaccuracies, and increased operational risk.

OUR SOLUTION: AUTOMATED VALIDATION STATION™ (AVS)

Applying Automated Validation Station™ to the Danish Armed Forces' existing processes enables automated accuracy checks, real-time traceability, and reliable on-time delivery across the supply chain.

KEY BENEFITS

- Automated validation reduces errors and ensures correct deliveries.
- Streamlined (un)loading speeds operations.
- Real-time RFID tracking provides full supply chain visibility.
- Automatic inventory updates keep stock data accurate.
- Reduced delays enhance operational readiness and reliability.

WHAT IS AUTOMATED VALIDATION STATION™

Automated Validation Station™ uses data from your current system(s) to automate your processes. Combining this data with data from the applied RFID results in an automated tracking and validation system. The solution contains three main components:

1. A passive RFID tag
2. An RTLS portal with antennas
3. The AVS software component

STEP BY STEP EXAMPLE OF USING AVS

The process works as follows:

1. Uniforms are tagged with passive RFID tags, and your system associates each tag identification with details.
2. Items are placed under a wireless RTLS portal during loading, where items are automatically scanned.
3. Data are sent directly from the reader to our cloud backend platform, Lyngsoe LIVE Logistics™, where the AVS software component registers the automated scans and performs the validation logic before the scanned items leave their current location.
4. Any mismatches, such as wrong quantities or destinations, are immediately flagged.
5. Operators correct errors before shipment, leaving only validated loads to dispatch.
6. As goods arrive, inbound validation confirms shipment accuracy and updates inventory systems in real time.

WIRELESS RTLS PORTAL

FREE STANDING GANTRY

AVS TABLET
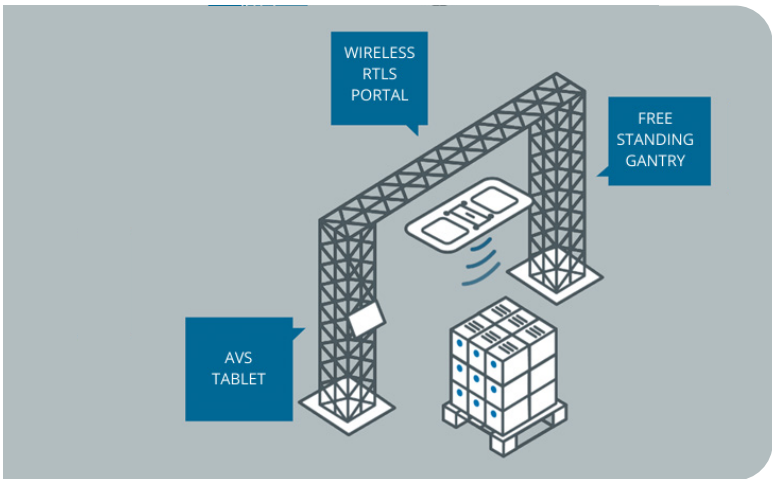
READY TO TAKE THE NEXT STEP?
Contact us today to learn more about how we can support your logistics and supply chain needs.

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CHALLENGES
- Manual and time-consuming scanning.
- Supply chain errors.
- Wrong deliveries, increased costs.
- Lack of visibility.
- Inconsistent process quality.

BENEFITS
- Faster processes and reduction in human workload.
- Accurate, real-time validation.
- Reduced costly mis-shipments and returns.
- End-to-end visibility.
- Standardized, automated workflows.

SECURING RFID DATA WITH THE GS1 KILL COMMAND

There are cases where you do not want to be able to read tags anymore. Therefore, the GS1 standard for encoding tags contains a special command (the KILL command) that permanently deactivates a tag. Hereafter, it is no longer possible to read information regardless of distance and reading method.

Photo: Torbjørn Kjosvold / Forsvaret

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