

inubit RFID solution

Process oriented integration of RFID data

Due to the increasing cost pressure in the last years, companies today find themselves in the situation where most of the potential for in-house cost reduction is already exploited.

As a consequence, in order to open up new channels for cost reduction and to tap the full potential that lies in the supply chain, they take a look beyond their company's boundaries. In this question, the contact-free identification of the material flow is a topic that draws a lot attention. This constitutes the basic technology to capture data right where it occurs and to make it available.

RFID technology works hand in hand with internet based applications. These allow making relevant data from production and supply processes available to various stakeholders via suitable platforms in a standardized manner. Here, RFID based systems achieve a new level of data quality and actuality.

The integration into existing ERP or SCM systems is a central precondition in order to successfully implement a contact-free identification. Today, numerous systems are specifically designed to process barcode information. It is due to the large data volume and advanced data formats that are to be processed with RFID that an adaptation of the existing systems becomes necessary.

The inubit RFID solution – continuous integration of RFID data

The RFID solution based on the inubit BPM-Suite provides the necessary infrastructure for the fast introduction of RFID technology in the company and enables a seamless integration into the respective business processes.

Basis of a successful introduction of RFID technology is the adaptation of existing processes to the opportunities of the new technology. Not only a variety of possibilities for automation is offered but also series of new exceptions must be considered. The inubit BPM-Suite provides the necessary business process modeling tools – up to simulating new processes.

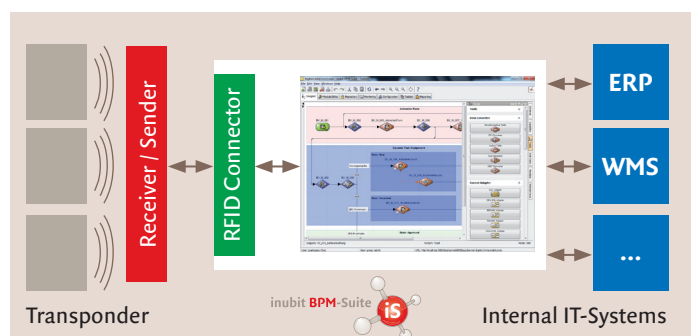
The technical realization is done in the same tool based on the defined process models. In order to offer our customers

the highest flexibility in the choice of processes and respective transponder hardware, inubit cooperates with a variety of RFID manufacturers. Therefore, the RFID connector which connects the receiver / emitter to the integration server enables evaluating antenna signals of various manufactures.

The signal of the antenna initializes a defined workflow in the inubit BPM-Suite which in turn processes the received information and initiates follow-up activities. This can be the entry in downstream systems or the interaction with a user who manually confirms the automatically read data. In combination with active transponders and several antennas, also the movements of objects or persons can be traced.

Thanks to the large amount of standard connectors to various systems, the RFID technology can be integrated into each and every system landscape. The encompassing business and technical monitoring functionalities of the inubit BPM-Suite enable a reliable process control in real time. The information made available here can not only be used for tracking and tracing. Above that, the integrated reporting engine also allows a comparison of ACTUAL and TARGET processes. As a result, not only further optimization potential can be identified, but also a consistent performance measurement becomes possible.

Starting from a defined process, the inubit BPM-Suite provides companies of all industries an integrated solution which optimally integrates the transponder technology into the company's processes. Running processes can be monitored, analyzed and optimized in real time.



Schematic diagram of the RFID connector functionality in the inubit BPM-Suite

Use and benefits of RFID data integration into the supply chain

RFID in general enables the contact-free identification, steering and tracking of all goods and objects across the entire value chain – from production to after sales. The diagram clarifies at which points within the supply chain it makes sense to use RFID technology:

1. Production with RFID tag

Identification of all goods along the supply chain without repacking and visual check

2. Packaging

Pallets and bundles also receive RFID tags and can thus be identified and followed along the entire process chain

3. Outgoing goods

Capture of all goods and packages without visual check or repacking, transfer of the data to warehouse management and resource planning systems

4. Incoming goods in the distribution center

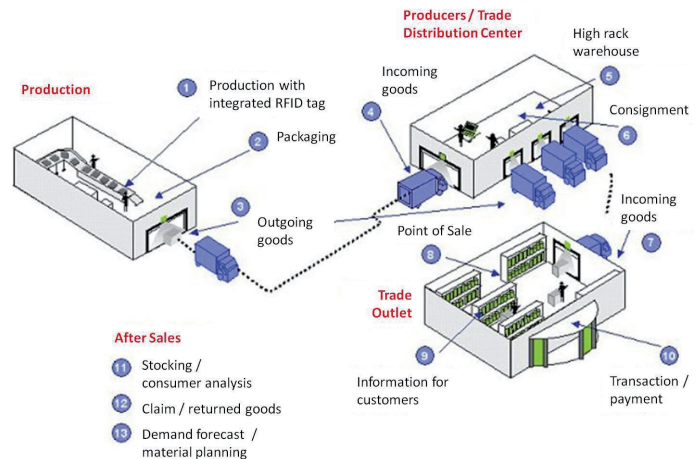
Identification and quantitative capture of all incoming goods, automatic comparison with order and delivery data, direct sending of a receipt to the supplier as well as goods-specific booking of the incoming goods

5. High rack warehouse

Automatic goods registration at the time of storage and inventory adjustment

Advantages of the inubit RFID solution

- Continuity from process modeling via implementation to business and technical evaluation
- Allocation of real time information about the entire supply chain
- Complete solution consisting of software and hardware with broad support of various RFID providers and transponder types
- Quick integration of all backend systems as well as of external partners into the RFID processes
- Integration of staff into automated processes
- Complete flexibility within the process oriented handling of RFID data



Source: Auto-ID-Center | EPC global

6. Consignment

Automatic assignment of goods to transportation units as pallets or containers and deposit on a transponder, booking of the delivery in the ERP system and dispatch generation

7. Incoming goods branch store

Capture and booking of all incoming goods in the ERP system without visual check or repacking

8. Point-of-Sale

Automatic tracking and tracing of goods movements as well as permanent inventory adjustment with the ERP

9. Information for costumers

Fully automated real time information of the customers about product features, activities and stock availability

10. Transaction / payment

Contact-free registration of the purchased articles, information transfer to downstream systems for invoice generation

11. Stocking / consumer analysis

Booking of sold goods in the ERP system and execution of a systematic re-order

12. Claim / returned goods

A definite identification of goods and its production and delivery process, quick and customer friendly handling

13. Demand forecast / material planning

Improvement of the demand forecast and of the cooperation with business partners through real time information along all process levels