

UBI Solutions: The Traceability Challenge

Abstract

UBI Solutions (Paris) is an High Tech company specialized in integrating innovative traceability solutions based on RFID and IoT. Over 5000 RFID devices deployed and more than 1 billion events processed per year in its UBI Cloud SaaS platform. The company is registering a growth of 60% per year and is developing partnerships with universities and clusters to set up research programs for technology improvements. To support the digital transformation in manufacturing and logistics, UBI solutions is undertaking new challenges. UBI Solutions suggests today efficient and real time IoT solutions for production, Supply chain connectivity and traceability.



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Introduction

In the current economic context, manufacturers and Supply Chain actors are requiring agile production system, reliable transportation, accurate storages to ensure product availability and conformity. The reliability of the Supply Chain activities can be enhanced through the quick identification of the products and containers. The product is tagged with RFID or IoT tags to be tracked along the dynamic evolution chain from suppliers, production plants, warehouses, retailers up to the customers. UBI solutions believes in the advantages of IoT solutions: connected smart products, smart trucks and smart devices can significantly increase Supply Chain efficiency.

Challenges

For the next coming years, the digitalization is gaining increasing interest. To support the digitalization along the lifecycle of the product from design, sourcing, production till delivering, accurate data capture is of upmost importance. Collecting data without human interventions is made necessary to be able to treat data in the cloud before displaying it on screens and tablets.

The risk of errors and the non-visibility along the Supply Chain seem to be the main problems to tackle. Products flowing along the complex supply chain involves reliable picking, cross docking, organizing fleet trucks with affordable solutions. The various assets that can be tracked with IoT solutions are: products, components, containers, boxes, trucks, and materials.

“ *The Challenge for UBI solutions in industry 4.0 revolution is to combine two paradigms for IoT Strategy: the most affordable and technically reliable. The R&D team is working to develop an optimized IoT architecture* ”

The other challenge is to extend the sectors of applications. Beyond Manufacturers, Logisticians and Supply Chain Actors, UBI Solutions is expanding its solutions to hospitals, retirement houses, hotels,...Furthermore, adding new technologies inside the IoT solution portfolio is one of the future axis of development such as the use of Artificial Intelligence and elements recognition with camera inclusions.

How will we solve the problem?

The solutions implemented by UBI Solutions to ensure traceability are mainly based on RFID.

The Turn-key service provided by UBI Solutions to their customers starts with: *an analysis to draft the specifications and industrial process, choice of equipment to best fit technology, coordination of teams to achieve shared outcomes, development of applications, deployment through installation and user training and finally support and maintenance of the full solutions.*

UBI Solutions are investing in new developments to grasp the opportunities of new technologies such as: *BLE, LoRa, WiFi, Cloud, Camera, 4G and 5G* to adapt them according to the use cases required by the company. Some technologies are matching an outdoor situation; others are supporting indoor traceability issues as shown in the figure provided by UBI Solutions.



UBI Solutions – Technologies used

References

- 1) Ubi Solutions - Paris and Bordeaux
<https://ubisolutions.net/fr/>