

Application to a warehouse environment of a tracking system based on RFID and free software

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Summary

RFID technology allows connecting all supply chain players; which makes this technology to have especial impact at distribution centres. In most scenarios, the visibility points are static elements that can only help track the inventory and the status of the products along the supply chain. The existing mobile RFID reading systems do not usually exploit the features provided by mobile devices, as many of them just display the information contained in RFID tags. This paper proposes a traceability system based on Android, which is a new mobile operating system, It includes a management and communication API based on a customization of EPCIS capture/query client on Android. Besides, this system adds location capabilities into chaotic warehouses by using WLAN signal fingerprints in order to establish the indoor position of products. The system allows quick and efficient location of products, while implementing artificial intelligence methods to improve productivity during the picking processes.