Radio frequency identification

I. INTRODUCTION

The widespread deployment of RFID technology has revolutionized object identification in various industries through the automation of several tasks.

The supply chain involves different stakeholders which collaborate to fulfill a business life cycle objectives.

The RFID technology means richer data and deeper intelligence for all partners of a supply chain.

It can help in saving fuel costs and optimizing fleet management by monitoring traffic conditions.

supply chain application relying on RFID should achieve the following requirements:

1-being able to track your assets effectively

2-Reducing the time you hold onto stock

3-Monitoring the flow of work in progress

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The use of RFID for logistics on the supply chain allows a more efficient and reliable inventory and tracking of items.

A tag consists of an integrated circuit attached to an object that should be identified (e.g. the products). Each tag enables contact-less communication with a valid reader device through a radio link by sending its corresponding unique ID when interrogated.

The Reader communicates with the server and with the tags.

It is responsible for performing the queries to the tags. The server is a trusted entity that knows and maintains all information about tags, such as their assigned keys. It is assumed to be physically secure and not subject to attacks.

RFID increases supply chain process efficiency, traceability, visibility, security and trust among the supply chain partners.

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