RFID

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What is RFID?

* RFID: abbreviation for
Radio Frequency IDentification

1. Similar in theory to Bar Code identification. RFID uses wireless Radio Frequency to recognize properties and apply it to diverse fields.
2. As a next generation identification technology, it helps people to manage diverse individuals of foods, animals, plants etc. with wireless wave and IC chip.
3. Also, RFID is highlighted as one of the most prospective censer technology which is necessary for ubiquitous environment.

Structures of RFID

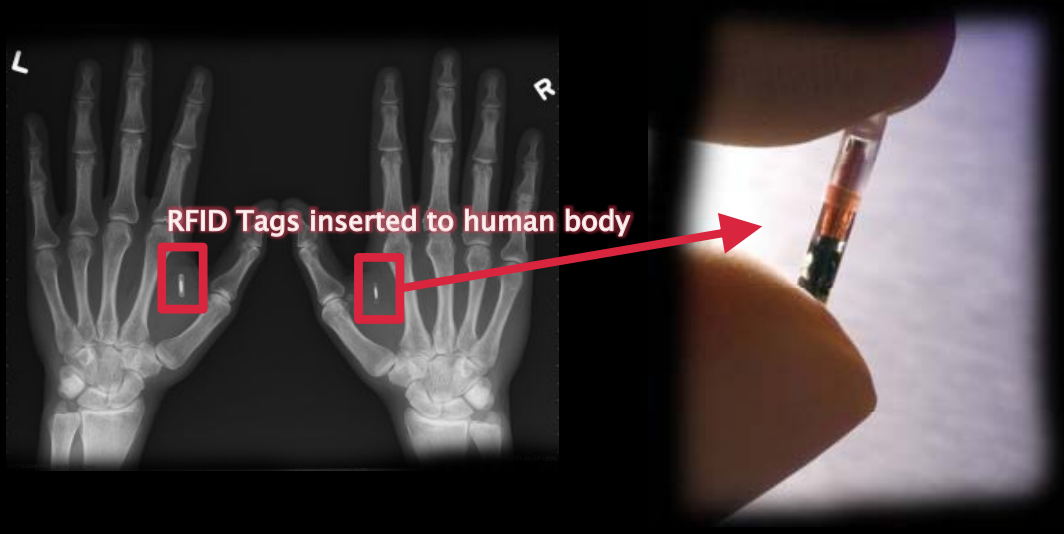
RFID Tag — Receive RF signal, Transfer info to Reader

Transmits data to Middleware — Reader

Middleware
Contact to outside Communication system

Structures of RFID

RFID can be implanted to human body



Features of RFID Technology

Penetrates obstacles

RFID has very high frequency so it penetrates most of obstacles except water and human body

Recognizable without contact

Recognizable while moving

Very remarkable compared with Bar code

Increased number of terminals

Different from Bar Code, RFID can recognize a number of tags without being crashed each other using a new protocol named IPv6.

Prospects

Can be used about anywhere from clothing tags to missiles to pet tags to food, anywhere that a unique identification system is needed

Even some auto manufacturers use RFID systems to move cars through an assembly line

The tag can carry information from simple to complex instructions

Prospect Distribution

1980s: Bar Code totally reformed the way of Distribution
Now: RFID gives another possibility of another Revolution

Wal-Mart is already utilizing RFID technology for some Products and recently, Wal-Mart announced that they are going to replace all Bar Codes with RFID

Prospect

Seoul city inserted RFID tags into 681 trees in Gaehwa-dong street.

Gaehwa-dong, Seoul

RFID Tags inserted into trees which bears information about ID number, Species, Date of planted etc.

Now officials can have information of the tree only by typing the ID number of a certain tree to the computer, sitting in the office.

Now, with this new technology, they do same job much easier and systematically

Defects

1. High Cost

Desired: 1~2 cents is appropriate to be practically used in market

Current: Now, the Maginot line of RFID cost is regarded as 5 cents

Cheaper-version of RFID tag

2. Possibility of invading individual Privacy

Some people argues that it can invade individual privacy. They says by implanting a RFID chip into a human body or making it legal to bring certain objects which possesses RFID chip, it can be used as a method of managing and controlling people.

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Thank you ☺