

Anti-Counterfeiting (RFID based)

Client's Background

Customer is a large Pharmaceutical company providing Medicines for Malaria. The medicines deliver finished dosage forms (FDFs) and a potent chewable gummy anti-pyretic (anti-fever) Artemisinin combination therapy (ACT), recognized by the WHO as the best available treatment for Malarial infection.

Client's Challenge

Counterfeiting has been a challenge for pharmaceutical companies for many years now. Counterfeiting is not only illegal but constitutes a serious threat to public health and safety since counterfeit drugs are not subject to safety checks. The World Health Organization (WHO) estimates that counterfeit drugs account for more than 10 percent of the global medicines market. Fake drugs also affect the revenue as well as brand name of the company.

This same challenge was faced by client as well. Client wanted to protect its brand and encourage patients to use client's authenticated products by providing some means for the patients to validate the authenticity of the medicine at the time of purchase.

The Our Approach

We suggested client to use lable RFID tags to use with their medicine packages. And then provided a solution comprising of web and mobile based authentication of their product.

The Label RFID tags would have following data pre-loaded

- TagID (unique identifier of the tag)
- ClientCode (an encrypted code which can reveal the client name, product code, expiry date etc once decoded)
- Random Passcode (additional code for further verification)

A web UI was provided to the client to upload all the Tag details along with the Client Code and Random passcodes to a central server.

An android based mobile application was provided to read the tags associated with medicine and verify the authenticity of the medicine against the central data store.

So patients can download this application on their NFC enabled mobile phones and verify the medicines at the time of purchase eliminating the risk of purchasing fake drugs. Validated medicine tags would return a Passcode along with the product information which the patients can cross check again through client's website. On submitting the passcode on the web site, the site would check the same against the central data store and verify if it's a valid passcode or not.

Successful outcomes and results

A happy client with confidence of reduced risk of counterfeit medicines of his brand being purchase by patients resulting in increase in revenue as well.

Technology used

- VB.Net
- Microsoft SQL Server 2008R2