RFID CASE STUDY

Nauter Technologies
Pharmacy Asset Tracking

Solution: Accurate identification of office assets and automated recording of asset information.
Products: Tracient Technologies’ Padl-R HF handheld RFID reader.
Blackberry 8700G PDA.
Industry: Pharmacy
Country: Mexico

www.tracient.com
Asset Tracking For Office Assets

Business Challenge

Pharmacies typically have large amounts of expensive equipment and they can lose significant amounts of money from not knowing where their equipment is. Amongst other things there is the time lost trying to find items and the unnecessary expenditure to replace them. So most pharmacies use an asset management system.

Historically these asset management systems have been based on visual identification of the asset and the manual recording of the information. The problem is this manual process takes time, involves relatively high labour cost and is prone to human error.

These problems can be overcome using RFID but the challenge is to develop a cost effective solution that is not prohibitively expensive for small to medium sized stores.

Solution

Nauter Technologies, a systems integrator based in Mexico City, has developed a low cost asset tracking solution using Tracient’s Padl-R HF handheld RFID reader and Blackberry 8700G PDAs. The solution has been trialled by Farmacias, a Mexican pharmacy franchise with 700 franchisees throughout Mexico.

Outcome

The pilot using Nauter’s solution for office asset tracking was a success. Measured performance improvements included reduced time for asset location and identification, and improved accuracy in recording of assets.

This has resulted in reduced stock taking and back end administration labour costs, improved utilisation of assets, more timely servicing and replacement of equipment, fewer thefts and a reduction in capital expenditure on “buffer” equipment.

“We pioneered the use of Tracient’s handheld readers with Blackberrys and now have a very neat asset tracking solution. We found Tracient’s SDK was well written and their technical team gave us excellent support when we were writing the software.”

~ Juan Pablo Camacho,
CIO, Nauter Technologies
Customer Brief

Farmacias del Ahorro is a pharmacy chain commercialising 7500 different items through 700 stores throughout Mexico. Being the dispenser of a large amount of prescription pharmaceuticals the company relies on equipment to administer its services. This equipment includes scales, pill counters, centrifuges, computers, racks, etc. Farmacias found it was wasting significant amounts of money replacing equipment that could not be found. The lack of visibility was also contributing to a disturbingly high amount of theft. Farmacias’ brief to Nauter Technologies was to come up with an autoID solution that was easy for their staff to implement, within a modest and predefined budget.

Business Process Challenge

Nauter sought to provide Farmacias with a solution encompassing the following benefits:

- Quick and accurate identification of company assets.
- One hundred percent visibility of company assets in real time from a centralized location.
- Elimination of data capture errors.
- Elimination of back end office errors such as operators recording information against the wrong asset records in the database.
- Reduction of paperwork and time spent by administration staff updating asset records.
- Decrease in stolen assets.
- Opportunity for improved information on servicing/replacement cycles by writing information directly to the asset.

Options Considered

Options that Nauter considered include Bar-codes, handheld computers with built-in RFID, and fixed RFID readers. Bar-coding was dropped because of complications reading the barcode in harsh environments, in particular on cars in warehouses where there is a lot of dust and humidity. The built-in RFID handheld computer option was discarded because of their weight and the staff’s reluctance to use devices they perceived overly technical. Fixed readers were
considered too expensive in terms of capital outlay. In the end Farmacias’ budget requirement made the decision easy. The majority of the franchisees owned Blackberry PDAs so all Nauter needed was a relatively inexpensive RFID reader to be able to read tags on the assets and upload the information to the databases held on the Blackberry.

Nauter chose Tracient’s Padl-R HF RFID reader because it’s Bluetooth connectivity provided quick and easy RFID capability to the Blackberry. The compact, lightweight form factor was also important given many of the operators were relatively small women, and the single button operation meant reader operation was straightforward for low tech workers.

Solution

ISO15693 13.56 MHZ SLI tags were placed on every piece of equipment in the franchise store. During asset counting the pharmacy administration staff used the Padl-R HF to scan the tags. Tag information was transferred almost simultaneously to the operator’s Blackberry via Bluetooth. The Blackberrys held Farmacias’ asset database and matched the tag ID with the asset.

The operator could then write information such as time/ date of visit, operator’s ID, status of asset and other business related information into the keyboard of the Blackberry and transfer it back to the tag using the ‘write’ function in the RFID reader.

Nauter capitalised on Tracient’s comprehensive Software Development Kit (SDK) to integrate the readers with the Blackberry 8700G. Nauter developed their application in Java and ran it on the Blackberry’s RIM operating system. Nauter’s software for the smartphone offered a simple interface from the Blackberry back to Farmacia’s enterprise database over the network. Staff could communicate the information to the enterprise database during the inventory taking via GPRS technology. Using a software platform developed by Nauter this gave the option of 100% asset visibility on every franchise in Mexico. Farmacia then knew exactly what time the asset inventory was completed and what assets were in each store.

Results

Nauter calculates that one person can do the asset inventory in about
45 minutes, so this employee can do 4 or 5 stores per day. With barcoding it is estimated the employee can achieve 1 or 2 stores per day, meaning there is a significant reduction in labour time and cost.

Human errors around data capture on assets and data entry back in the office have been eliminated, resulting in more efficient use of employees time.

Farmacia now has real time visibility and increased accuracy around it’s assets which has lead to more efficient asset utilisation and the reduced need for ‘buffer’ equipment.

The solution has also given Farmacia the ability to ensure the depreciation of assets is maximised in each store.

The feedback from Farmacias’ staff is the bluetooth connection between the Padl-R HF and the Blackberry is easy to establish and they particularly like the lightness of the reader.

What Next?

The Farmacia trial involved 20 pharmacies in the Northern part of Mexico city. The company now has plans to roll the solution out to another 40 franchises in the East and South of the city.

In the future Nauter is considering the option of having the customer’s database hosted on a browser so that all the customer’s employees have access to up-to-date asset information in real time.

Conclusions

Tracient has helped Nauter with a high-end solution that builds on a legacy smart phone device (the Blackberry 8700G) and improves the accuracy and efficiency of their customer’s office asset management.

The combination of smart-phone and RFID reader provides a low total cost of ownership which was an essential requirement in the project brief.

Nauter is confident it’s solution will have broad industry appeal as time savings and error reduction made with improved asset visibility can lead to improved profitability in all businesses.
About Tracient Technologies

Tracient Technologies specialises in the design and manufacture of wireless handheld RFID readers designed especially for mobile/field applications. Tracient's products are designed to international standards and offer plug and play Bluetooth and USB connectivity with rapid integration into workstations, handheld computers and cellular phones. [www.tracient.com](http://www.tracient.com)

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About Nauter Technologies

Nauter Technologies is a 100% Mexican company that was established formally in January 2000. Its founders are a group of young entrepreneurs with extensive experience in the fields of consultancy, technology and developing software for solutions on data collection. [www.nauter.com](http://www.nauter.com)

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