Omni·ID®

Intelligent Tracking & Monitoring Devices

Customer success story [**Financial Institutions**]

Redefining Laptop Security at Financial Institutions

❙ A RFID Success Story

Like most large organizations, the employees at one of America's largest financial institutions rely on laptop computers to maximize efficiency.

However, maintaining security for high-value assets that enter and leave the building every day proved extremely challenging. With the help of Omni-ID, the institution was able to meet that challenge head-on.

The Problem

Before implementation of RFID technologies, employees were lined-up outside the front door of the corporate facility every morning. From assistants to senior vice presidents, all were required to take his or her place in line for individual check-in and laptop serialization checks—a highly inefficient process that involved approaching the security desk with one's ID card and laptop. As a first step towards solving the problem, the institution installed new security gates utilizing RFID access control cards coded to each individual. This proved to be a major step forward for employee check-in. Yet, laptop tracking remained an unresolved issue, leaving them open to potential risks due to vulnerable data security and unmet compliance.

The Challenge

The security gates demonstrated the rich potential of RFID—people were accounted for, arrivals and departures were time-stamped, log books and encoding errors were eliminated, and accurate reporting was enabled. From that initial success emerged a vital question: Could they deploy RFID to track laptops? At first, it was assumed that they could use the same access control cards that they were using to track employees. After all, the cards were thin and light, and could be attached to the laptops to provide an automatic read of the serial number once encoded and associated to the laptop. However, initial tests uncovered a serious obstacle: metal. Laptops contain many electronic and metallic parts—all of which interfere with radio frequency signals and make conventional RFID tags unreliable. Specifically subject to interference are the predominant FCC-approved frequencies: High Frequency (HF) at 13.56 MHz and Ultra High Frequency (UHF) at 850-950 MHz.

After researching the options, the team determined that UHF tags offered the ability to "tag on metal." They acquired hardware (RFID readers) to support the output frequency of UHF and embarked on a mission to find and test as many of the on-metal UHF tags as possible. Some of the "passive" tags were very large, in some cases too large to attach to a laptop. Other tags were smaller,

but still not small enough to meet the institution's credit card size requirement. Cost was also an important issue. The smaller tags were priced in the $5 to $10 range. Other "active" tags were battery operated to improve read performance, which sometimes tripled the price. Yet, despite these initial difficulties, it became clear that the concept would indeed work to help them manage their laptops.

As testing and research continued, the institution's IT team came upon the Omni-ID Flex™ tag. It was small and thin, not like the other on-metal tags, and the pricing was in line with the budget. Tags were ordered and tested. Not only did they fit on the laptops, but they worked flawlessly. Even when the tags were tested on laptops inside briefcases or bags, the read performance was a remarkable 100%. The team had finally found a solution for the institution's business hardware and application challenges. All that remained was selling it in...and putting the system in place.

"We knew that RFID tagging would vastly improve the efficiency of our internal asset management systems. The challenge was finding a cost-effective tag that met all of our requirements. Omni-ID Flex™ proved to be that tag."

IT Manager and RFID Team Leader

The Omni-ID Flex™ tag (shown above) enables the financial institution to track individual laptops with 100% accuracy.

The Solution:

A proposal was made internally to begin moving away from the manual hand-checking of laptop serial numbers to automatic identification at the security desks. Without much hesitation, it was approved.

The IT staff began by building a database and internal software application. It was determined that the application should support a visual display to match each laptop to its user—enabling the system to associate the person entering or exiting the building with the serial number of the laptop. When a laptop is placed in proximity to the RFID reader, the serial number activates the corresponding database entry and displays a photo of the user. The staff at the security desk acknowledges that the user matches the data and logs in the employee and laptop with the push of a button.

During the testing and validation phase of the implementation, employees began to see, first-hand, the effectiveness of the system. Laptops tagged with the Omni-ID Flex™ were being identified, security checked, and encoded in less then 5 seconds— and, even before the system was up-and-running, employees began pushing for the change to occur.

Later, it became clear from a data management perspective that the logging of a laptop could easily be cross-referenced against access control at the employee gates. If the timing of building entry for the laptop and the employee did not match, the system would raise a red flag—providing the institution with a completely new level of on-site security.

Now that the system is fully operational, it has proven to be a huge success. Following its major achievement, the IT team has been tasked to take on other challenges for asset tracking. Although many obstacles were faced before the team arrived at a solution, it is clear that the major milestone achieved was due to the technology of the Omni-ID tag. Without that powerful on-metal enabler, the entire system would still be a dream.

Identifying with Omni-ID

A major financial Institution sought to address the inefficient process of manual hand-checking of employee laptops into and out of its corporate facility.

The Challenge

- Deploy RFID to track laptops as effectively as it provided access control for employees
- Locate an on-metal tag to meet the requirements of size and budget

The Solution

- Cost-efficient asset management
- Error-free performance and accuracy (100% read rates)
- Increased level of security

The Achievement

A fully operational system enabling the automated identification and tracking of laptops, leading to increased efficiency and enhanced security.

> "Now that the system is fully operational, it has proven to be a huge success"

Visit www.omni-id.com to learn more or email sales@omni-id.com for all product or technology inquiries and we will be pleased to get in touch.

Omni-ID is the leading supplier of passive, low-profile UHF RFID solutions. Through our patented technology, Omni-ID "cracked the code" to overcome the problems traditionally associated with RFID, enabling a broad range of new applications that improve accuracy and efficiency in asset tracking, supply chain management and work-in-process. Our family of versatile RFID tags works reliably in the harshest environments, including on, off, and near metal and liquids and excels in solving tracking and identification challenges with unprecedented accuracy. With offices in the USA, UK, Asia and India backed up by a purpose-built manufacturing facility in China, our mission is to drive the widespread adoption of RFID and wider IoT technologies as the optimal tracking and identification devices.