IRON MOUNTAIN™

What is RFID?

RFID stands for Radio Frequency Identification Device. RFID labels (either passive or active) are attached to items to be tracked and read using a radio frequency scanner. RFID labels are often used in place of traditional barcodes, which are read by an optical (laser) scanner. Like a barcode, RFID uses a tag (a label with a microchip & Antenna) that is affixed to whatever you want to track. Unlike a barcode, however, RFID does not require line of sight to scan the tag. There are two types of tags that are in market today that companies use: Active RFID tags and Passive RFID tags. Passive RFID tags are tags that don't have a power supply (I.E a battery) to be able to respond to scanning. Retailers often use passive RFID tags attached to stock to prevent theft. An example of Active RFID is the toll transponder you may have attached to your car windshield which is activated each time you pass under a toll gantry

In a study conducted by Texas Instruments in the United States of America, RFID has proven to be a valuable form of technology to provide the ability to scan the RFID tags to utilize artificial insemination data, fleece weights, pregnancy testing, fibre testing and tracking of every sheep on the farm. The main advantage of RFID is that each individual item that is being tracked does not require a "line of sight" scanner, and therefore scanning of items in bulk is more efficiently achieved. . Active tags also have greater capabilities to transmit and communicate information, but to do so they require a battery which periodically will need to be replaced to allow the Active Tag to continue to function.

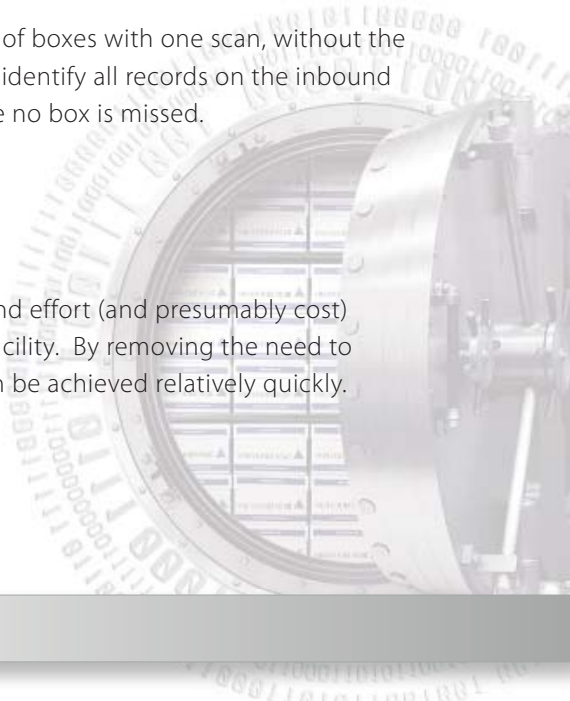
How does RFID work when applied in a records management environment?

Recently, Recall announced intentions to incorporate RFID into their inventory tracking process. Recall are using passive RFID tags to locate and audit inventory within their warehouse, as well as for the processing of in bound lodgements. For audits, Recall will scan the aisles with an RFID reader. This scan will 'awaken' the passive RFID tags and they will signal to the reader if they are present. This scan will then be reconciled against the inventory identified within Recall's inventory management system.

For inbound records processing, an RFID scanner will process an entire pallet of boxes with one scan, without the need for line of sight barcode scanning of each individual box. This scan will identify all records on the inbound order, and will be reconciled against a physical count of the records to ensure no box is missed.

What benefit does RFID bring for the consumer of Records Management Services?

The main benefit for consumers of Records Management is a reduced time and effort (and presumably cost) to locate missing items within the Records Management provider's storage facility. By removing the need to manually scan each box by the use of RFID, an audit of a facility inventory can be achieved relatively quickly.



What benefit does your Records Management provider get from using RFID?

RFID technology assists Records Management providers in 2 ways:

- Operational efficiencies with processing inbound records, arising from a quicker scanning process using the RFID scanner as opposed to the traditional line of sight barcode scanner; and
- Reduced time and effort to conduct inventory audits, including a reduction in labour costs in locating mis-shelved inventory. The extent of the savings realised will be directly correlated to the frequency with which work flow errors occur within normal warehouse operations.

What is Iron Mountain doing about RFID?

Technology is a vital part of society and something that makes our every day life more effective and more efficient. Iron Mountain is continually seeking ways to more effectively use the latest technology to provide our customers with a more secure cost effective service. In the last year alone, Iron Mountain has invested over USD 150 million in developing new technologies, and we have been evaluating RFID for the past few years as an emerging technology. Our technology investment extends far beyond simple carton tracking mechanisms, and includes solutions to help clients better manage their records and information. In fact, Iron Mountain has rolled out an interesting implementation of RFID as a supporting technology in our patent-pending design of our vehicle alarm systems (part of the roll-out of InControl™ in North America).

We think RFID has a broader future and we have several pilot projects with strategic partners going on. We prefer not to comment on their uses except that they are different than our competitor's application. We will apply RFID in areas where it demonstrates itself to be the best solution in solving real business problems. In the long term, there is a good case to be made for RFID for certain use-cases, but there are still some technology issues that need to be addressed before a large scale implementation can be made in an environment such as ours. For example, we're working with leading RFID vendors to address issues such as:

- Saturation of signals in dense locations
- long-term readability of chips (with technology evolving so quickly, would today's chip be readable in 5 or 10 years)?
- Chip interoperability (how easy will it be able to migrate from today's greatest chip to tomorrow's?)

While this approach has some potential value, Iron Mountain's strategic focus has been to enhance the controls utilised to secure inventory in motion (pickups, retrievals, etc). From our experience, it is clear that 99% of chain of custody challenges when inventory is in flight. Our workflow processes, as built in to our records management systems, require a physical scan for every record movement, in line with best practice in inventory management, as implemented by logistics companies such as Startrack or Australian air Express. The implementation of RFID in a records management doesn't focus on, or improve, this process. In fact the key benefit of RFID seems to be to overcome deficiencies in certain provider's work flows, and help them to locate missing records more easily.

Aside from any environmental aspects, the costs for RFID are high. Typical costs for passive RFID tags are between $0.50 - $0.60 cents per unit – a cost which is being borne by the consumer of the services, for little benefit in return.