



CASE STUDY

SALT LAKE COUNTY LIBRARY SERVICES (SLCLS) AND RFID PROJECT RESULTS

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prepared by **THE GALECIA GROUP**

Contents and Contact

About This Report

This Case Study was originally written by Gretchen Freeman about her experience while Associate Director at Salt Lake County Library. It is has been edited for consistency as one of the featured Case Studies.

About The Galecia Group

The Galecia Group provides technology consulting to libraries. We specialize in automated materials handling, RFID, self-service technologies and website development and support.

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INTRODUCTION

This case study focuses on Salt Lake County Library's system-wide implementation of RFID technologies beginning in 2005 and its experience since then. SLCLS Associate Director for Technology Gretchen Freeman joined the library system in 2004 and oversaw the planning, purchase, implementation and transition to RFID-based services system-wide over this period.

Salt Lake County Library Services (SLCLS), under the leadership of Director Jim Cooper, is a large multi-branch urban library system located in the 700-square-mile county surrounding Salt Lake City, Utah. The system consists of 18 public-service libraries, 2 libraries in adult detention centers, and one health clinic reading room. These outlets serve a population of 850,000 Salt Lake County residents, house a collection of 2.1 million items and circulated 15.3 million items in 2014.

Not unlike other high-volume public libraries, SLCLS was drowning in its success. The materials budget was healthy and circulation was growing at 6% per year although staffing remained static. Two new, larger branches opened in 2005 in areas of pent-up library demand; four new replacement branches opened from 2011-2013. Along with new buildings and materials, SLCLS realized that service was shifting to programming and community outreach—requiring a commensurate shift in staffing.

GOALS FOR THE RFID PROJECT

Starting with the decision to implement RFID system-wide, SLCLS formulated five goals for its project.

1. Install, simplify and streamline self-checkout for patrons to achieve at least 50% self-checkout

Staffed checkout stations at circulation desks simply couldn't handle the volume of customers and circulation any longer—creating lines 8-15 customers deep at times

2. Streamline circulation desk and backroom processes while reducing staff repetitive motions.

The amount of barcode scanning required to process material meant that staff was experiencing repetitive motion injuries that resulted in medical leave, wrist branches, assignments away from circulation duties and even surgery.

3. Establish RFID as the single security method throughout the library system

The library had four different security systems in place—magnetic strip, RFID pass-around, closed A/V stacks and locking media cases. The resulting hybrid was confusing and ineffective—causing even more staff handling and repetitive motion injuries.

4. Introduce automated materials handling in new branch buildings and evaluate existing buildings as candidates for installation of an AMH

Returned materials waited in library back rooms up to 6 days to be checked in and re-shelved. To keep up with book drop returns, delivery check-in was often a lower priority. Consequently, high-demand materials were unavailable for customer use.

5. Streamline the collection inventory/weeding process and the handling of exceptions lists

Weeding the collection and finding exceptions cost hundreds of staff hours each month.

IMPLEMENTATION

SLCLS conducted a public procurement process and selected Tech-Logic Corporation as its partner to implement RFID, self-checkout, security gates and two initial sorting systems. SLCLS tagged its collection over 5 years, starting with new acquisitions and gradually moving around the system. For retrospective tagging, the library developed four different tagging methods depending on circumstances such as available staffing, space and whether to close a branch for tagging. Barcode self-checkout was implemented first at each branch—which gave staff time to learn and begin tagging. During this period, staffs were trained on RFID characteristics, tagging standards, self-checkout, and security. Staff also spent time working at two new branches already operating with RFID self-checkout, security, and automated materials handling in order to instill confidence and enthusiasm.

Over the five-year period, all existing branch collections were tagged and self-checkout and security gates were installed. Adopting the Tech Logic “Combo” station model, each branch installed from 3-8 self-checkout stations. For various reasons, SLCLS did not implement payment options at self-checkout. In subsequent years, several branches added one or two “Express” self-checkouts next to self-service holds pick-up shelves or in children’s areas. Insuring that customers had a positive and convenient self-checkout experience drove decisions about the number and placement of stations in each branch.

RESULTS

SLCLS focused throughout the project on maximizing use of new RFID capabilities to achieve its goals:

- Self-checkout through 95 stations in 18 branches handles 97% of physical circulation. During all but peak hours, a single staff member can view 3-5 Combo stations placed at circulation desks—ready to accept payments, issue new cards, or assist customers with their sessions if needed. Customers love the speed of multi-item RFID check-out—and not waiting in line for service.
- Checking material in or out manually with RFID multi-item stacking significantly reduced handling time and staff injuries. Staff time to check in materials from delivery totes was cut in half—resulting in most hold requests being transported and ready for pick-up in 1-2 days.
- Each branch installed RFID security gates as soon as tagging was completed and all other security methods were discontinued. Spot checks for A/V materials showed from 1.6-4% loss rate depending on branch. Material theft in recent years has targeted TV series in multi-disc sets (discs are not tagged) and prompted installation of security cameras in select branches.
- Eight branches have installed Tech-Logic “Throw & Go” automated materials handling systems—six in new buildings during construction and two in existing libraries. All returns at those branches are checked in on the sorters. Staff is on hand to remove full bins or feed materials from delivery totes. Two months after each installation, a portion of circulation staffing based on workload statistics, were shifted to non-AMH branches or to other public services. All branches now strive to shelve returned material within 24 hours and to prioritize processing and shelving of hold requests for self-service pick-up as quickly as possible.
- SLCLS purchased seven handheld RFID scanners and set up a rotation schedule for each branch to scan its entire collection 3 times a year. Shelves scan portions of the collection each week to locate exception statuses, shelving errors and weeding candidates. Branches now request their own wand in order to expand its use for shelf management tasks.
- SLCLS realized an unexpected labor and cost savings by purchasing pre-encoded RFID tags for new materials. Rather than have staff program a barcode to each blank tag, tags are pre-encoded and printed with an SLCLS barcode during manufacture. The library saves labor, reduces equipment costs and avoids human errors, as well as paying less to its pre-processing supplier to apply the pre-encoded tags on new acquisitions.

In the final analysis, implementing RFID and its related technologies allowed SLCLS to move staff from barcode scanning and materials handling to “value-added” services while mainstay circulation services perform smoothly. The library will continue to leverage its investment in RFID into the future with automated materials handling systems, collection and shelf management, and new customer services.

WHAT SLCLS LEARNED

If the library were starting its RFID project today, it would likely have included two capabilities available in more recent years:

1. Use the “set” cataloging capability for single DVDs or CDs to tag both a disc and its matching case with individual RFID tags. The AMH will check for a set match as the item checks in and staff doesn’t have to open cases for a visual check.
2. Implement PCI-compliant credit card payment at self-checkouts

The library succeeded in many aspects of the project—and offers some advice”

- Define and quantify what you want to accomplish with RFID technologies and communicate those goals clearly to administration, staff and customers. Revisit goals regularly and make sure the project is delivering positive customer experiences.
- Educate staff about how RFID works so they can interpret its behaviors and develop realistic expectations for its performance
- Make sure that customers have a positive self-checkout experience and become repeat users
- Don’t underestimate the positive customer relations value of RFID with faster self-checkout, automated sorting systems, and handheld RFID scanners. The library becomes a cool place to visit and to see and use these high-tech tools!