

Library RFID Project Update

June 21, 2011

Project Description

The Library RFID Implementation Project was funded by program offers 80022 (FY09) and 80021 (FY10). The project goal was to meet patron demand for library services by automating and streamlining materials movement processes, while providing security of library materials.

RFID (radio frequency identification) technology involves putting transponder tags in books and media so that they can be scanned more easily at checkout and check-in stations and security gates. RFID makes patron self-checkout easier and faster, increases efficiency at staff check-in stations, and improves the security of the collection when used with RFID security gates.

As of May 31, 2011, the project is complete. Next steps include deploying portable inventory devices that have already been purchased from the project budget. These devices will help with searching for specific items, keeping the collection in order and performing inventories of selected sections of the collection.

Budget

The total project budget was \$2.97 million. As of May 31, 2011, \$2.56 million had been expended. Additional project funds of approximately \$10,000 will be spent for PDAs or netbook computers that will connect to the inventory devices.

Ongoing costs include annual hardware/software maintenance fees of \$80,500 and annual RFID tag costs of \$116,000, totaling \$196,500. However, we expect RFID tag costs to continue to decline. The cost of book tags has already dropped from \$.26 to \$.19 since June 2009. CD/DVD tags are down from \$1.06 to \$.82.

Accomplishments:

- Added RFID tags to 1.886 million collection items
- Installed 76 public checkout stations and 200 staff workstations
- Installed RFID security gates at 18 locations
- Trained staff in 19 locations on best practices for assisting patrons at checkout stations, working with new RFID equipment and handling security gate alarms

Additional work at Belmont, North Portland and St Johns Libraries

Belmont, St. Johns and North Portland Libraries needed greater reconfiguration of their public service areas in order to accommodate the new RFID check-out stations and create efficient work flows for patrons and staff. These projects were completed in April 2011, allowing additional time for architectural work, planning and bidding. The Library Foundation helped fund the St. Johns project with \$81,000 from a recent bequest that was given specifically for the St. Johns Library.

Performance measures:

- 98% of collection items tagged as of May 2011.
- Systemwide monthly self checkout rate increased from 19% (October 2009) to 81% (May 2011).
- 3.5 FTE vacant staff positions reallocated from Central media holds desk to other locations; approximate value \$195,635 per year.

We do not yet have enough data to accurately measure changes in materials handling workload, workers' compensation claims, or long term loss rates, but we have anecdotal reports from management and staff of the following:

- SWAT (Systemwide Assistance Team) staff time has been allocated to help with materials handling backlogs approximately 20% of the time in the last three months, compared with previous allocation of 50%.
- Neighborhood and Central staff report shorter lines at checkout and less backlog of crates to check in.
- Central staff report less repetitive stress in checking in items and opening DVD/CD cases to check contents.
- Staff report that the collection is in better order; search lists are easier to complete.
- Central Library monthly missing list went from 1383 (May 2009) to 740 (May 2011); percentage found went from 24% to 45%. (i.e., actual items missing went from 1051 to 407, a 61% reduction.) Items are set to missing status in the catalog when an item that is supposed to be available can't be found. Fewer missing items mean less loss. It also means less staff work searching missing lists and greater patron satisfaction when items that are supposed to be available are where they should be.
- Systemwide, missing lists for May 2011 (the first lists that were generated after the RFID conversion was completed) show a **38.5% reduction** in number of items missing when compared to the lists for May 2009. In real terms, **2,054 fewer items were set to missing status** in May 2011 than in May 2009.

Best of all, our patrons are noticing that employees are now able to provide greater assistance to the public. Here are some examples:

- "Like the new check out system and staff is very helpful with the changes."
- "The library is outstanding! Checkout system is great and speedy. Great to have a person near the main door to ask."
- "Tell the director that the staff has handled the changes very well and have been very helpful."
- "I frequent Central, Midland, Gregory Heights, Rockwood, Fairview and Troutdale libraries. I have found the assistance that I get at each location is incredible! There has been a big shift in the personal assistance at all locations [it] is remarkable. I've noticed this new patron help this year. I'm not sure why it happened but I'm very appreciative."