

1. What is RFID?

RFID stands for Radio Frequency Identification. In the case of libraries, it stands for a system that makes checking materials in and out much easier and in the case of check-out, makes it possible for us to have patrons checking out their own materials in a much more intuitive and user friendly way than our current self-checks. It works by placing a small tag (about 1" sq) in the cover of each book. The tag consists of a small computer chip and an antenna. **The only information on the chip is the barcode of the book.** When a patron lays the book down on the receiver pad and inserts their library card in the card reader, the items are checked out to them. A receipt is then printed.

In addition to making self-check possible, RFID makes taking inventory and shelf reading much easier.

2. How did the Library make a decision to purchase and implement an RFID system?

When the renovated Central Library opened in 2002, there were no additional funds to increase staff although the building was twice the size of the original Central library. A committee of staff people, including line staff, union stewards, front line supervisors, managers and the director was formed to look into ways to do things safely, effectively and efficiently. We began to visit other libraries and to look at all of our processes to determine what we could stop doing, what we could do better and how we could use technology. We visited Santa Clara City Library, which had been using RFID for over a year at that time.

Eventually, staff invited 5 of the major RFID vendors to present their products to us. At the same time, we asked Lee Tien of the Electronic Frontier Foundation to discuss his concerns about privacy with the committee. In addition, we spoke to representatives of Boalt Hall's Samuelson Law, Technology and Public Policy Clinic and to David Molnar, a PhD candidate at Cal in Computer Science. We were appreciative of their help in examining issues of privacy and in reviewing our Request for Proposal for privacy issues. However, they did not recommend a course of action nor have they expressed support or disapproval of the Library's decision to purchase RFID.

In January of 2004, we presented the responses to our RFP to the board with a recommendation that the board accept the proposal from Checkpoint Systems. Throughout the process, Checkpoint had consistently responded to Library concerns about privacy, had attended public forums and had made their engineers available for discussions of future innovations around privacy issues. This behavior led us to believe that Checkpoint would respect our concerns for privacy and that this behavior boded well for customer service issues in the future.

The Berkeley Public Library Board of Trustees met and discussed RFID at a special public session in March, 2004. In April, 2004, they voted 5-0 to accept the Checkpoint RFP.

3. Do we have a timeline for instituting RFID?

We are currently using RFID at Central and the branches. . All non-media items have been tagged. We will begin installing the self-check machines this summer. When all the media is tagged, we will begin encouraging the community to use the self-check machines.

4. We are concerned that RFID will replace library jobs.

No library employees are being replaced by RFID. No library employees are being laid-off at all. We have had to hold some library positions vacant during these past two years in order to keep a balanced budget. However, by doing this we have been able to stabilize our budget. Where our budget will not allow us to replace those vacant positions, RFID will remove some of the burden from the remaining staff.

We began to discuss the idea of an RFID not to replace staff but to deal with the problem of doubling the size of the building without increasing staff.

The other reason that we began to consider RFID is the amount of repetitive stress injuries that we have here each year. We have workers who are sustaining life-altering injuries just from checking books in and out, processing materials and other repetitive tasks. Not only is that a serious quality of life issue for those who are hurt but it also costs us a great deal of money that we would rather use to serve the public. Each year, we have costs of appx \$400,000 either directly or indirectly from Workers Comp claims (according to the City Auditor). Not all of these claims are from Repetitive Stress Injury, but certainly many and many of the most serious and long-term are.

5. Where did the money come from? Is this money wisely spent during this time of severe budget crisis?

We arranged, through the city's budget office, to borrow the money at a very good interest rate. We will repay it at \$111,000/year over a 5-year period.

The board regards this as a good investment. We do not have to reduce library hours any further even though we continue to hold staff positions vacant. Staff will get injured less as they perform less repetitive tasks. In time, this should help reduce our Workers Comp costs and eventually, the cost of our Workers Comp insurance. We will be able to turn library staff to helping the public find books, use the computers and other activities that are more direct public service than the repetitive checking in and out they are currently engaged in.

We expect this system to be helping us serve the public long after it is paid off.

6. What health issues arise with RFID?

RFID tags are passive, that is, they emit no radio frequencies. It is the gates that read the tags and they have a very low rate of radio frequency waves. We have found no credible information that RFID is a health risk. We are housing some information on RFID and health effects at the reference desks at Central and the branches if you have concerns.

7. Will Library respect and concern for privacy be compromised by RFID tags?

No, absolutely not. Our commitment to patron privacy is absolute.

However, we certainly understand the concerns. And, we are pleased that we got involved in the privacy discussion before we purchased a system. It helped us to step back, re-evaluate, ask experts for their opinion and establish best practices for this library:

We will not purchase smart cards.

We will tell all our patrons that we are using RFID.

We will only put the barcode number on the RFID tag. Barcodes contain no information about the book.

We will not allow patrons to search our database by barcode. Thus, even if someone has the barcode number, they will not be able to tie it to a particular title.

We will continue to search out best practices and institute them.

If someone tells you that they have a book with a barcode of 31913017476117, this tells you nothing about the title, author or subject of the book. That barcode is the only information that is on the RFID tag. That information is encoded in the software code of the particular vendor who makes our tag. That information is proprietary and not readily available. So, even getting to the barcode is very difficult.

The other concern that has been raised about RFID tags is the possibility of using them as a tracking device. The RFID tags that we are using have an antenna that is only readable from 18 inches away. They are designed that way to keep one patron from checking out the books of the patron behind them. This currently makes their usefulness as a tracking device very limited. We do understand that technology advances and that it may become possible for someone to build a scanner that reads from much further. We believe that even then two things make it unlikely that library books make a good tracking device. The first is that we will, under our best practices, make sure that our patrons know that we use RFID tags. The second is that library patrons do not carry their library books with them wherever they go. They leave them at home, they leave them in their cars. They are not a reliable device for anyone wishing to follow another person.

8. How much integrity does the new equipment have? What will happen if the system goes down?

Since March 4th, we have been using RFID to check-in materials as a test of the system and to identify problems before we begin to use it more broadly. We have been pleased by its performance. We have not had a breakdown of the system in that time.

The best-planned technology implementations almost always have their surprises and problems. We have done what we can to minimize difficulties by waiting until over 100 other libraries in the US had implemented the technology before we purchased it. We have talked to these libraries and tried to learn from their mistakes.

If the library has a failure of our automated circulation system, RFID would actually benefit us because patrons could continue to checkout on the system and we could transmit the information when after the circulation system had return to service.

If the RFID system failed, we would simply return to the method of checkout we have now. However, we have not heard of any significant rates of failure from other libraries that have been using RFID, some for several years.

9. What about patron service? Won't we lose the contact between staff and public that is so appreciated by all?

That's a real concern. For many of us, what we like most about working in a library is that contact with other humans. And, it's one of the things that make the public appreciate public libraries. So, we have to make sure that while we are turning away from checking out books, we are not turning away from public service. That will mean many things, from having more staff available to show people how to use the self-service checkouts at the beginning to having more staff on the floor helping to answer questions, find books, help with computers or other public service tasks. We invite you to help us find ways to use staff in the best way under the new system.