

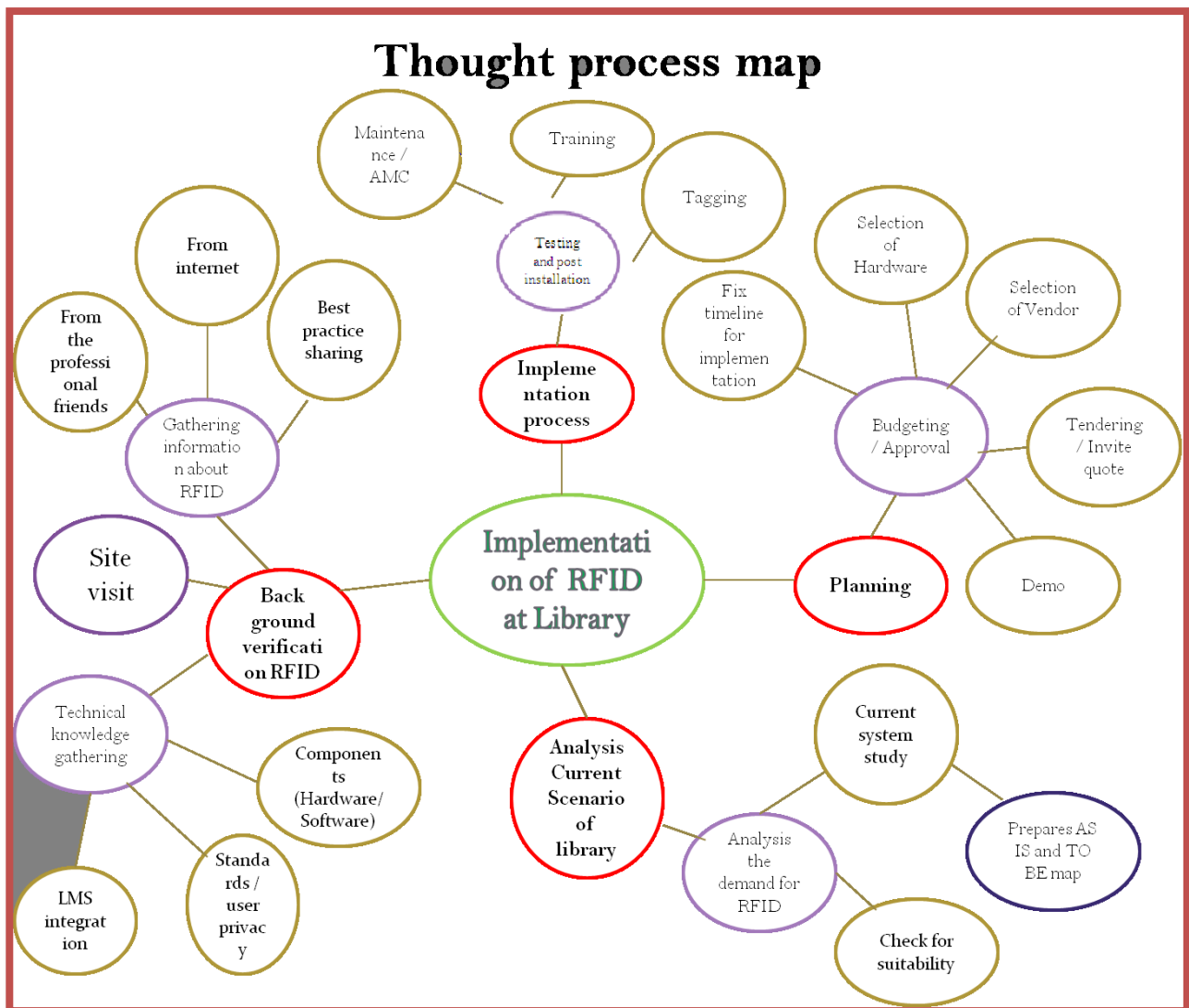
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Introduction:

Radio Frequency Identification (RFID) is one of the new AIDC (Automatic Identification and Data capture) technologies. The technology acts as a base in automated data collection, identification and analysis systems worldwide. Our library has implemented RFID technology with RFID reader issue / Return counter, Gate antennas to monitor the theft, student ID card with RFID tags enabled, Kiosk for self-issue and renewal, Drop box for automatic return and Hand held reader for stock verification. This paper provides the thought process map, scope document and manual for librarians, which can be used for their guidance.

Keywords: RFID in Library, RFID at academic library, Implementation of RFID, RFID manual

Process map:



Scope document for implementation of RFID:

Librarian can check the below scope with RFID vendors and get the details for the further discussion before procurement.

- What is the reading range of the RFID Tag?
- Type of RFID tag used?
- Middleware to integrate with our library software?
- Compatibility of data transfer from current software?
- Access of reader books placed in steel racks?
- What is the Accuracy of RFID Gate?
- Whether RFID is following Indian standards for radiation? Any health hazards due to radiation?
- How to search the misplaced books using hand held reader?
- How to connect the hand held reader with mobile or lap to for transferring the data?
- How to bind the tags in the books (cost of labor)
- Tag cost and hardware availability in Indian market
- How many books can be return at a time? (Bulk return)
- Overall implementation cost and further AMC plan?
- Barcode vs. RFID dual usage is possible?
- Is there any inverter / UPS required for the all the RFID system?

Manual for implementation of RFID:

Librarian can check the below points while implementing of RFID

- **Database up gradation** –Consult with RFID vendor and LMS person clearly on the data transfer procedure.
- **Fixing of RFID Gate** –Provide minimum of 6 feet distance between two gates to avoid collision.
- **Fix the alarm range-** Select the suitable sound of the bursar and the range for alarm.
- **Circulation desk** –Minimum of 6 feet distance between two antennas requires for avoiding the tag collision.
- **Stock verification** – Check the size of the file to be transfer from hand held reader to the PC
- **Searching of misplaced books-** Get a separate mobile app for searching the misplaced books
- **Update data:** Update the data from LMS to mobile app before searching the misplace book
- **Kiosk** – Provide only issue and renewal option in the kiosk. Better to avoid return option in the application of auto self-check in.
- **Drop box-** Check the damage of books while dropping, provide cushion inside to avoid damages.
- **Electricity and network:** Proper power back up and network facility required for RFID Gate, kiosk and drop box.
- **Training-** Proper training required to the library users and staff members
- **Security system** –Need CCTV surveillance in all the places to monitor the user's activities to avoid the removal of the tags.



Conclusion:

RFID is one of the emerging technologies in all area of research. In recent days there are many academic libraries in India has been implementing RFID. RFID is also recommended by the NAAC, NBA and other accreditation under security systems. RFID can also be enhanced with internet of things (IOT) in future to create smart library.

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