The Complete RFID Handbook

A Manual and DVD for Assessing Implementing and Managing Radio Frequency Identification Technologies in Libraries

Diane Marie Ward

Contents

List of Figures		xi
Pre	face	xiii
Acl	knowledgments	xvii
1.	RFID: An Innovative Technology in Libraries	1
	Introduction	1
	Defining RFID	1
	Adopting Technology in Libraries	2
	Addressing the Image of "Big Brother"	4
	Exploring the Beginning of a New Technology	4
	Integrating RFID into Consumer Culture	8
	Enhancing Library Technology with RFID	14
	References	14
	Additional Resources	15
2.	Understanding RFID Systems and Standards	17
	Introduction	17
	The Power Source	18

vi The Complete RFID Handbook

	Radio Frequency	19
	Smart Tags	20
	Chips and Data Programming	20
	Security Bits	24
	Label Application	25
	Audiovisual Material Tags	25
	Electronic Production Code (EPC)	28
	Integration Standards	29
	Readers	36
	Software and Servers	38
	Network Security	38
	References	40
	Additional Resources	40
3.	RFID Library Applications	43
	Introduction	43
	Item Management Security	44
	Modify Circulation Desk Tasks	46
	Install Self-Checkout Stations	47
	Streamline Shelf Management with Handheld RFID Readers	49
	Improve Inventory Control	50
	Trace Missing Materials	53
	Track Audiovisual Materials	54
	RFID Patron Cards	59
	Consider Patron Self-Checkin	60
	Automated Material Handling and Sorting	61
	Store and Retrieve Select Materials	62
	Government Documents Management	64
	Special and Archival Collections	64
	Historical Artifacts and Rare Books	65
	Review of RFID and Library Applications	66
	References	66

4.	Determining the Return on Investment (ROI) of RFID	69
	Introduction	69
	Separating Myths from Reality	70
	Comparing Implementation by Public Libraries and Academic Libraries	72
	Calculating an Accurate Return on Investment (ROI)	75
	Surveying Patron Satisfaction, Time Savings, and Cost	76
	Estimating Costs of an RFID System	77
	Interviewing Early Adopters of RFID	83
	Exploring the Administrative and Collection Management Benefits	88
	Liberating Patrons from Long Lines	93
	Freeing Staff from Tedious Tasks	96
	Reducing Repetitive Stress Injuries	97
	Cutting Down on Work-Related Injuries	100
	References	101
5.	Deciding to Put RFID into Operation	105
	Introduction	105
	Striving for Service Excellence	106
	Gathering Feedback from Library Associations and Interest Groups	106
	Balancing the Tangible and Intangible Benefits	109
	Commissioning a Library Planning Committee	113
	Determining the Rate of Implementation	115
	Solving Problems with Circulation and Security	118
	Brainstorming Seven Key Areas of Consideration	121
	References	133
6.	Designing Your RFID Solution: RFP	135
	Introduction	135
	Drafting a Request for Proposal	135
	Finding the Right Price	137
	Crafting Sample Questions for the RFP	138
	References	149

7.	Selecting Vendors	151
	Introduction	151
	Finding Reputable Vendors for Libraries	152
	Comparing the Eight Top Vendors	158
	References	179
8.	Installing and Maintaining the Complete RFID System	181
	Introduction	181
	Anticipating the Top Five Vendor Needs and Expectations	181
	Drafting the Conversion Plan	184
	Staffing the Collection Conversion	187
	Managing Technical Services Workflow	191
	Exploring RFID and Consortium Libraries	192
	Considering RFID and Integrated Library Systems	194
	Establishing Technical Support	197
	Continuing Maintenance Procedures	199
	References	199
9.	Protecting Staff and Patron Privacy within an RFID System	201
	Introduction	201
	Guarding Privacy in Libraries	201
	Realizing Technical Limitations of RFID	202
	Exploring RFID in Real-World Libraries	205
	Responding to Library Organizations, RFID, and Privacy Issues	207
	Relating the History of Privacy Rights Issues to RFID Technology	209
	Legislating RFID	211
	Understanding Privacy Rights Advocacy Groups	212
	Tabling RFID	217
	Judging Patron Privacy and Staff Concerns	218
	Enhancing Patron Privacy with RFID	221
	Addressing Staff Concerns	221
	REID-Enabled Patron Cards	222

	References	222
	Additional Resources	224
10.	Public Relations and Patron Education	225
	Introduction	225
	Successful Integration Starts with an RFID-Literacy Campaign	226
	Health Concerns Associated with RFID	227
	Training the Patron on Self-Check	229
	Best Practices	233
	References	234
RFID Pocket Guides		235
Poc	ket Guide A: Acronyms	237
Poc	ket Guide B: Library of Congress Subject Headings for RFID and Related Topics	239
Poc	ket Guide C: Ward's 2006 Survey of RFID Libraries and RFID Vendors, Survey Methodology	240
Poc	ket Guide D: Recommended Resources: Books, Web Sites, Blogs, Discussion Boards, Organization News, and Vendors	248
Ind	ex	253
Abo	out the Author	261