

Ignoring the "people factor" when designing an RFID system can lead to big trouble. Here's how to ensure your deployment will meet both business needs and employee expectations.

By John Edwards

Feb. 8, 2010—"People" is a word often missing from RFID project plans. When it comes to designing a system, in fact, the focus is almost always on technologies, processes and costs, rather than on the human beings who will operate and work alongside that system. And if people are taken into account, it's usually in terms of operational or management tasks, not on how individuals will react or adapt to the new environment.

Forgetting or ignoring the people who will manage or use an RFID system can be an immense strategic blunder. As Mark Roberti, founder and editor of *RFID Journal*, observed in his Editor's Note column last October, "although RFID automates some tasks, it is human beings who will use the data provided by an RFID system" (see [Don't Forget the People Factor](#)).



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—LESLIE DOWNEY**

Designing an RFID system that accommodates both physics and people is not only a good idea, it's now a basic requirement as deployments become more complex and integral to core business applications. The following seven steps will help you plan an RFID system with people in mind.

1. Create a People-Aware Project Plan

When designing an RFID system, it's easy to get lost in the technical and financial minutiae, and to miss the big picture. Companies need to remember that any RFID project—even one that is technically

perfect, and precisely meshed with specific business needs—will never meet all of its goals if it fails to win user acceptance.

A prime way to make enemies and alienate employees with RFID is to create a project plan so large, complex and overreaching that it overwhelms everyone who touches it. "It's important to set realistic targets, and to make people aware of them," says Pankaj Sood, founder and manager of [McMaster University's](#) RFID Applications Laboratory, located in Hamilton, Ont., Canada.

Mary Beth Clarkson, VP of worldwide services and support for supply chain systems provider [Savi](#), says she advises clients to take an incremental, step-by-step approach to projects. "We've been successful in getting organizations to adopt RFID in a phased approach," she states. "We'll go in, and we'll do a specific piece of the process, automate that and then roll that out."

Sood stresses the need for building a project plan that encourages free and open communication between system designers and users. "The point is to get organizations thinking," he says, "getting them to communicate early and communicate often."

2. Identify Key Stakeholders

RFID deployments must typically serve several masters. Even a relatively simple system needs to satisfy the financial- and productivity-focused demands of executives and managers, as well as the task-oriented requirements of employees working on a floor or dock. Identifying the relevant parties, and addressing their desires and fears, is an important step toward creating a system that will succeed in both technical and operational terms. "You really need all levels of leadership within the organization to get behind this [RFID project]," Clarkson says. "Because once you put it in place, if you don't get broad adoption, then it goes away and people fall back into their old processes, using paper and those types of things."



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Potential stakeholders can be found at all levels—from a company's CEO down to the worker who manages tagged pallets. "Even though you might have a champion within the executive management team, you still need to identify the other people you'll need to work with," Sood says. To pinpoint stakeholders, planners need to determine which departments will be the project's prime beneficiaries, and then to begin building bridges to their leaders. "You have to be proactive with them—letting them know what you're doing and why you're doing it," he says. "Generally, if what you're proposing makes sense, it's a simple selling proposition."

3. Make Your Case

Getting key stakeholders to support a new RFID initiative is typically a major challenge facing project planners. "That's one of the resistance points," Sood says, "actually getting stakeholder buy-in." Planners must do their homework, he adds, and provide stakeholders with the information they require to make informed decisions. "Companies generally don't have case studies or examples they can easily access, so it's a bit tricky for management to understand what the realistic return would be."

Leslie Downey, principal and founder of training firm [RFID Revolution](#), recommends that project planners create a solid business case for an RFID initiative before attempting to attach stakeholders to the project. "The best way the project sponsor can convince stakeholders to support an RFID project," she says, "is to show them positive results from a successful pilot, thorough plans for the full implementation and a meaningful estimate of ROI, including improvements in related key performance indicators."

At [Lockheed Martin Aeronautics](#), which uses Savi RFID technology on its F35 fighter jet production line

as well as in several strategic supply chains, obtaining buy-ins from multiple stakeholders was crucial to developing smoothly functioning RFID deployments that were completed on time and on budget. David Edwards, a senior manager in the company's Fort Worth, Texas-based integrated operations group, says that showing primary stakeholders how their departments will benefit from RFID usually turns them from passive partners into motivated project advocates. "We were very 'lasered' on the areas we went into, so that we could identify the primary stakeholders and get their buy-in," he explains. "They were [then] able to assist us in securing the necessary funding and support of the other executive management team members to continue with the deployment of the technology."

4. Get Everyone Involved in Planning

One of the best ways to ensure that an RFID deployment will meet all its goals is to expand planning participation beyond company executives and managers, by drawing future system users into the process. Tom Bradshaw, VP of operations at [Wayne Memorial Hospital](#) in Goldsboro, N.C., knew from the onset that he needed to get his nursing staff involved in planning the facility's new medical equipment-tracking system, provided by [RadarFind](#). The system would help the hospital organize and monitor expensive assets, while also deterring nurses from hiding and hoarding scarce gear.

To ensure that the project would meet all its targets, Bradshaw asked the hospital's nursing director and her team to provide insight and ideas. "Those folks were the first to come to mind when I started thinking about who should be involved in this project," Bradshaw states, noting that the nursing staff's suggestions not only led to a better-designed system, but also helped lower resistance among staff members—the deployment's primary users—to the new technology.



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Amit Larom, VP of worldwide professional services for RFID systems provider [AeroScout](#), notes that in many cases, the mere act of inviting users to participate in project planning can accelerate employee acceptance. "The process of bringing together key stakeholders to collaborate on objectives... greatly alleviates any resistance that might be present," he says.

Any business, regardless of its size, can involve stakeholders at all levels of the planning process. "It might not be possible to bring every single person into the same room," Sood says, "but if you can bring representatives from different groups into the same room at the project's onset, it really helps bring everybody onto the same page."

5. Provide Reassurance

There has probably never been an RFID project plan that included a section on fear—yet that's precisely the emotion many employees experience the moment they hear that a tracking system is on the way at their company. Defusing such fright requires understanding and successfully addressing employee concerns. Workers, for instance, may worry that RFID efficiencies will inevitably lead to fewer available hours and jobs, while others might worry that the technology will be confusing and impossible to understand, making their routines more difficult.

Another major concern employees have is that management will use RFID to snoop on both teams and individual workers. "If you're trying to track patients and staff for planning purposes, for example, then the staff might react and think you're trying to track performance measurements, which is not the case," Sood says. Businesses need to be upfront with their workforce. "You just have to be open and honest about that, and let them know what you're trying to do, or what policies and procedures your organization is putting in place, to avoid abuse of the information that is collected. I think once that information is properly communicated, and the organization demonstrates trust in their employees, then you generally don't see resistance as much."

[Saint Therese Home](#), a senior housing community in Brooklyn Park, Minn., uses an RFID system supplied by [Intelligent InSites](#) to monitor the movements of its cognitively impaired residents. One way in which the facility's management counters employee privacy challenges is by showing how the technology can help staff members successfully counter false charges made by residents or family members. "Say one of our residents is complaining that a certain individual never came in and gave them their shower," says Dinah Martin, the facility's campus administrator. "Well, we can show them, via the RFID record, whether or not that person actually did that job."

To remove any mystery surrounding an RFID deployment, Lockheed Martin's Edwards recommends making the project—including vendors' representatives—as visible as possible to managers, floor or dock personnel and other employees. "We could have done the deployment from a conference room or another central location, but we chose to co-locate the core team—with Savi personnel—on the factory floor, in the general area that we were doing the deployment," he says. "Our workforce was able to interact with the Savi team, and I think that made a huge impact, because [the deployment] wasn't something that was being done in a vacuum—it was fully transparent to the workforce just what we

were doing."



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Aeroscout, meanwhile, advises that its customers use internal communication channels, such as e-mail and blogs, to update employees regarding current and planned RFID projects. "We... help them create internal communication and materials to share with their colleagues," Larom states.

6. Offer Training

Training is perhaps the best antidote to the blind terror many workers experience upon facing a new, unknown technology, such as RFID. "Education and training can help mitigate fear by familiarizing people with the technology, its application and its benefits," RFID Revolution's Downey says. "Even employees whose jobs will be disrupted by changes resulting from the new technology can become more supportive if they believe they are gaining useful knowledge and skills."

Getting a headstart on training is a proven way to get an RFID deployment off on the right foot with maximum employee buy-in, Sood says, noting that instruction should begin long before an actual deployment commences. He believes pre-deployment educational workshops held with employees and managers can help project leaders allay fears, while also providing potentially valuable feedback. "If you do that with different groups within the organization," Sood says, "you can see them actually getting excited about this [project] and providing more feedback in terms of what you should be looking at, or what the real business problems are."

Training and getting people used to the new technology can even be fun sometimes, Bradshaw says, adding that he brought his hospital staff up to speed by holding an RFID-enabled scavenger hunt. "We

tagged these little teddy bears and told staff that one of them had a \$25 gas card," he says. "You would be amazed how quickly they would find these things."

Saint Therese Home's Martin feels that trainers—whether in-house staff members or outside experts—must be sensitive to the needs of employees who, for one reason or another, have an extended learning curve. "Because of language barriers and technology comfort levels, it was difficult to get some of our home health aides to understand what they had to do to clear alerts and that kind of thing," she says. As trainers lead formal lessons or provide hands-on instruction, they need to be able to spot individuals who are failing to grasp key concepts, and then offer them extra training—even if such help is not requested.



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7. Supply Follow-up Support

As anyone who has ever managed an RFID deployment knows, a job is not finished on the same day an RFID system is switched on. To get and keep a new system functioning at maximum efficiency, follow-up support is vital.

Since employees come and go over time, businesses need to provide continuous access to instructional resources. Mark Rheault, Intelligent InSites' president and CEO, suggests building a small library of videos and computer-based learning programs that employees can access at any time to obtain a fast knowledge refresh. "They can just watch the video," he says, "and see how they can use the system."

Savi's Clarkson recommends designating one or more "super users" to act as mentors to other

employees. "Usually, that super user is responsible for making sure that when end users have a problem with the use of a handheld, or something like that, they're able to get a fix to their problem," she says. "It's a way of using people to help other people."