

False Belief Hampers RFID Adoption

Systems integrator R4 finds that a widespread misconception about tag read reliability has put a damper on RFID deployment.

By Jonathan Collins

Feb. 20, 2004—Interest in deploying RFID is being stifled by an outdated belief that 20 percent of all RFID tags fail to be read correctly, if read at all, according to systems integrator [R4 Global Services](#).

“There is a common perception among potential customers and even analysts that RFID systems can only deliver 80 percent read rates, and that is outdated and wrong. Information about the reliability of RFID is not reaching many corporate IT buyers,” says Jeff Richards, CEO of R4, which is based in San Francisco. Citing conversations with analysts, press reports and a survey R4 has taken of companies in a number of industries, R4 says there is a common wariness of RFID and a belief that the technology is still unready for deployment.

In October, R4 opened an RFID test facility and ran trials of RFID readers and tags from a number of equipment vendors including Alien, Intermec and others. During those trials, R4 found that RFID tags could be read successfully far more than 80 percent of the time.

“UHF technology we have tested has produced read rates of between 95 to 98 percent straight out of the box, without having to adapt business processes to fit with the deployment of RFID,” says Richards. Moreover, according to Richards, if a company modified its business processes to ensure that tags pass as close as possible to readers or if it reduced radio interference by inserting a shield between the tag and the product to which the tag is attached, read reliability could reach 100 percent.

One key development that has improved the read reliability, says R4, is greater RFID label testing at manufacturers and suppliers. “Increasingly labels that don’t work are being caught before the labels are shipped. Now if there are 25 tags that don’t work on a roll of 500, those tags have been removed before they reach the customer,” says Richards.

R4 says it has also seen a shift in how companies plan to evaluate RFID equipment. “Many companies are really under the gun to meet RFID deployment deadlines, and they realize they don’t have time to test RFID in house,” says Richards. Instead, he maintains, companies are turning to an established test center to test how well specific RFID tags and readers work with their product packaging rather than purchase equipment and deploy their own test systems, as they had originally hoped to do.

Formed one year ago, R4 now has around 20 employees. The company’s clients include a large U.S. retailer looking at deploying RFID to improve its retail operations, including its point-of-sale processes, customer information management, inventory management, and customer throughput. Another of R4’s clients is an electronics manufacturer in Silicon Valley with \$1.8 billion market capitalization and \$400 million in annual sales. Recognizing that RFID is going to have a significant long-term impact on its business, the manufacturer is trying to understand the technology, evaluate it in the context of its business, and develop a strategy on how it will use the technology.

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