

Wal-Mart, Best Buy Spearhead DVD-Tagging Pilot

The retailers, along with other EPCglobal members from the media and entertainment industry, are testing RFID's ability to provide visibility into where items are located, when they were placed there and when more need to be ordered.

By Claire Swedberg

Sept. 28, 2007—[Wal-Mart](#), [Best Buy](#) and other members of [EPCglobal's](#) Media and Entertainment Industry Interest Group are conducting an item-level DVD-tagging pilot with EPC RFID tags to help ensure that DVDs are in stock and available on the store floor at the proper time.

Participants in the pilot consist of media and entertainment companies throughout the supply chain, including production studios, replicators, distributors and retailers. Upon completion of the eight-week pilot, the participants hope to have gained enough information to move toward a broader deployment of item-level RFID tags.

The industry members hope RFID will afford them greater visibility into where the products are located, as well as when they were placed there and when the time comes to order more inventory. In addition, they hope the technology will help prevent titles from running out of stock. "It can help us ensure that we have product on the store shelves when customers need them," says Wal-Mart spokesperson John Simley.

During the pilot, which began on Sept. 26, participants are attaching EPC Gen 2 RFID labels to about 12,000 DVDs of 15 movie titles. The DVDs are being provided by [20th Century Fox](#), [Cinram International](#), [Sony Pictures Home Entertainment](#), [Technicolor](#) and [Warner Home Video](#). Each RFID label features an EPCglobal logo, along with text explaining the technology's use for consumers.

DVD replicators use fixed RFID interrogators to capture the unique ID number of each label. Data related to a particular DVD is stored in the participants' back-end systems—using a data repository based on EPCglobal's Electronic Product Code Information Services (EPCIS) standard—to share that information with other pilot participants.

The product is then shipped to a distributor, such as [Handleman Co.](#), or directly to a retailer. Wal-Mart and Best Buy, as well as an unnamed national retail chain, receive the DVDs and capture another read of their RFID labels before they are loaded into the stores' back rooms.

In addition, the retailers are testing RFID interrogators in the transition area between a store's back room and sales floor—and, in some cases, on shelves or promotional displays. They are also using handheld readers to search for specific titles within the store.

Data related to the products and their locations is made available to participants via EPCIS, says Gay Whitney, EPCglobal's standards director. According to Whitney, the pilot participants are using a variety of

EPCIS-based software systems to capture and interpret the data.

Wal-Mart is testing the system in "a handful" of stores in Oklahoma, Simley states. Though the retail giant is already utilizing RFID technology to track tagged cases and pallets of goods at about 1,000 of its stores, he says, this is the first time it is using RFID to track items on the sales floor. In each store, Wal-Mart is employing RFID interrogators mounted at the dock doors to receive new inventory. The retailer has placed readers at the transition area between the back room and sales floor, and also at the entrance and exit to the store itself.

By locating readers at the point of exit, Simley explains, Wal-Mart can use the technology to identify shoplifters attempting to remove DVDs from the store. Currently, however, the pilot is simply testing tag read rates in the store environment. Wal-Mart is also using handheld interrogators on its sales floors to test read ranges.

To educate consumers about the system, Simley says, Wal-Mart has installed signage in the DVD section, as well as at store entrances. Those signs state that EPC tags are being placed on products, explaining why they are being used and how they operate. "We feel customers need to know about the technologies we are using in the store," he says. "We find that the more they know about it—the more accurate information we give them—the more they support it."

After being formed by several media and entertainment companies, EPCglobal's Media and Entertainment Industry Interest Group met for the first time in January 2007. According to Whitney, the group quickly agreed to conduct a pilot. At that time, she says, there was already a consensus among players in media and entertainment that RFID tagging at the item level would benefit the entire industry. "There is universal recognition [within the entertainment and media industry] of the value of item-level tagging here," Whitney says—which is not the case with most other industries.

The need for greater item-level visibility is severalfold. DVDs are small, high-value items with rapid turnover. They can be sold quickly—especially new releases—and both retailers and distributors struggle to track inventory and keep shelves stocked with the movies consumers want to buy. What's more, production studios have an interest in ensuring DVDs first appear on store shelves and promotional displays on their actual release dates, rather than earlier or later, but this is hard to track when releases take place in thousands of stores across the United States.

Before launching the pilot, the group tested RFID hardware. "They were gaining an initial understanding of how read rates can be maximized," Whitney says. One unnamed replicator attached several models of EPC Gen 2 RFID tags to DVDs as part of the production process. The group then used various interrogators to test read rates for the different tag models and placement positions on the product. The goal was to determine how the tags would operate in stores, around fixtures such as store shelves and promotional displays. Most of that testing, Whitney recalls—which started in early June and lasted for six weeks—was conducted in a laboratory environment.

The pilot employs RFID hardware, software and services provided by [ADT Sensormatic](#), [Avery Dennison](#), [Checkpoint Systems](#), [Impinj](#), [Motorola](#), [Nashua Corp.](#), [NXP Semiconductors](#), [OATSystems](#), [Omron RFID](#), [Printronic](#), [SATO America](#), [T3Ci](#), [True Demand Software](#), [UPM Raflatac](#), [Vue Technology](#) and [Zebra Technologies](#).

RELATED_ARTICLES Following the anticipated completion of the pilot in November, Whitney says, the group plans to publish the results in a paper that will be available to EPCglobal subscribers. "We see this as a watershed event," she notes, indicating that other industries will be closely watching this pilot. Its conclusion, she predicts, will mark the point "where real deployment can start."

As a nonprofit group established to promote EPC standards worldwide, Whitney adds, EPCglobal makes it possible for industry competitors to work together toward technology advancement in a noncompetitive environment. Simley says the pilot participants share a goal of bringing RFID to the item level in stores, stating, "There are so many advantages from the technology standpoint, we all stand to gain from that."

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