MRI Gearing Up to Test RFID for Tracking Magazine Usage

Mediamark Research and Intelligence is testing the use of active tags and sensors to measure how magazines are read in waiting rooms.

By Mary Catherine O'Connor

Dec. 4, 2007—Mediamark Research and Intelligence (MRI), a New York-based provider of magazine audience and multimedia research data, is testing the use of RFID technology to measure how magazines are read in waiting rooms. The amount of time readers spend with those magazines, as well as how long they linger on particular advertisement pages, is considered golden data to the advertisers and magazine publishers that MRI serves. After multiple lab tests, MRI is set to begin its first public-space RFID test early next year. The trial will take place in one to three waiting rooms in or around New York City, and will last for one month, according to Jay Mattlin, MRI's senior VP of new ventures.

In 2005, MRI began researching whether RFID could be used as a tool for what is known as passive measurement of magazine usage (see RFID News Roundup: Research Group Considers Tags to Track Mags). "Passive" refers not to a batteryless type of RFID tag, but rather an indirect approach to tracking a publication's readership. A direct approach, in contrast, consists of a phone interview or other means of data-collection in which a reader is actively engaged.

MRI has partnered with TagSense, a Cambridge, Mass., technology development company, to develop the RFID tracking method that will be used in the field test. After its initial lab tests with RFID tags and interrogators, the companies concluded that tracking magazine usage in public spaces should be conducted using active tags rather than passive, since active tags could hold more data than passive tags and offer greater readability and range.

For the field test, a TagSense ZT-50 active tag, which transmits data at 2.45 GHz, will be mounted on the back half of a protective plastic cover on each test magazine in the waiting rooms. The TagSense tag and interrogator employ an IEEE 802.15.4 air-interface protocol similar to that used by the ZigBee standard for wireless sensor networks, often used for home automation. A sensor integrated with the tag will communicate with a wireless inductive marker attached to the front half of the magazine's protective cover. Based on its distance from the marker, the sensor will indicate each time the magazine is opened, and the tag's memory will store each event, along with a timestamp.

The sensor will take a new reading each second. Every half hour, the tag will transmit all this data to the RFID interrogator installed in each waiting room. Should one of the magazines be removed from the tag's 131-foot read range, MRI will still be able to ascertain whether—and for how long—the magazine is opened, since the tag will store the data until reestablishing communication with the interrogator. The interrogator will periodically send all the tag data it collects to a Web site maintained by TagSense. MRI will then download the data from the site in order to determine how well the equipment is working.

In later field tests, additional markers will be added to the magazines, explains Rich Fletcher, TagSense's chief technical officer, to track a person's exposure to individual pages. Each supplementary marker will require an additional sensor added to the tag, which Fletcher says can support up to eight sensors. Though the markers to be used in the initial tests will be stickers placed on the magazines, Fletcher says, they could be printed on the magazines using conductive ink.

According to Fletcher, MRI believes passive measurement could revolutionize the practice of measuring magazine usage for a number of reasons. For one, the accuracy of the data collected would not be degraded by a person's inadequate memory of a magazine title or the product advertised. It would also remove the guesswork from tracking the duration of time a reader kept the magazine open, or the number of seconds or minutes that person was exposed to particular magazine pages.

However, even if the planned tests generate very positive results, MRI does not intend to stop using its existing method for measuring magazine usage—conducting phone interviews with magazine readers—in the foreseeable future, since the cost of deploying and managing RFID networks on a large scale would be prohibitive. What's more, the quickly evolving RFID technology landscape would soon render suboptimal any system it deploys. Rather, the company hopes to use data gathered through RFID to supplement its existing practice, until such a time as the use of the technology for measuring magazine usage matures.

To identify and secure the cooperation of companies with public waiting rooms that are interested in offering their venues as test sites, MRI is partnering with DJG Marketing, a provider of outsourced media and marketing services for the publishing industry. Mattlin says DJG will assist MRI in developing partnerships with publishers for the secondary field tests that will involve a larger number of sites, as well as additional magazines and RFID equipment. Due to the higher costs that will be associated with these later tests, Mattlin says, buy-in from publishers will be vital.

RELATED_ARTICLES "We know that there is sensitivity in the public about the use of RFID technology," Mattlin says, adding that MRI has no means of using RFID to identify anyone handling, opening or closing the magazines during the field tests. However, he says, MRI is still determining the best way to alert the public to the fact that magazines at test sites will carry wireless electronics to track their usage.

Mattlin notes that advertisers and publishers are very interested in measuring magazine usage in public spaces. People have different reading habits and choices when in public buildings, such as a doctor's office or library, than they do at home, he says, but it's difficult to measure the usage of publications passed from one person to another, rather than purchased through a subscription. "There is a lot of reading that goes on in public spaces," he states, "and magazines with large subscription bases aren't always the ones with the largest audiences," since some titles have larger "pass-along" readership because they are read by many different people in public.

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