

China's RFID Conundrum

Deloitte & Touche warns that regardless of whether China establishes its own RFID standards, users of RFID technology need to stay tuned.

By Claire Swedberg

Aug. 20, 2004—American businesses using RFID technology should keep an eye on China, according to a recent [Deloitte](#) report. Entitled “Changing China,” the report warns that China is preparing to establish RFID standards that may or may not adhere to the existing international standards.

Regardless of which standards China adopts, current vendors of RFID technology will have a new major competitor. RFID technology consumers, however, will be affected as well. U.S. manufacturers that are planning to use RFID systems will have to reassess their choices, and may find considerably more RFID products available at lower prices.

China is demonstrating increasing influence over many technology markets, according to the Deloitte report. Seeking to play a similar role regarding RFID technology, China established an RFID standards working group in early 2004. Comprised of government agency representatives and manufacturers, this large group has been drafting and developing national standards for RFID technology and is expected to release a decision within the next few months.

News reports of the group's progress are unclear and even contradictory: Some say the group is focusing on adhering to current international RFID standards, while others indicate that the group is planning China's own separate standards. What is certain, according to Deloitte, is that, as the Chinese economy flourishes, the country's government agencies and companies are concentrating on ways to shape new technology standards, including those in RFID. Chinese manufacturers hope to build a critical mass of support for their choice in standards among end-user companies in their own country, say the report's authors, and then export RFID technologies and products such as tags and readers to some of the emerging markets—most specifically in Southeast Asia and the Middle East.

American companies will need to monitor China's standards decisions and be prepared to act accordingly. In the event that China establishes its own RFID standards, the country (which exports US\$438 billion in manufactured goods to foreign businesses yearly) could affect the way all international businesses use RFID by offering RFID tags and readers that are cheaper than alternatives based on current international standards. A decision by China to pursue its own standards may be unlikely, however, considering the influence of American and international market powers like Wal-Mart, which buys \$15 billion of Chinese-made goods annually and plans to spend as much as \$25 billion within the next few years, according to Deloitte.

Wal-Mart has taken the lead in endorsing the existing international standards and the Electronic Product Code (EPC), a tag serial numbering system promoted by [EPCglobal](#) that has digits to identify an individual item, as well as the item's manufacturer and product category. As the biggest exporter of Chinese-made goods, Wal-Mart has considerable leverage in China's standards decisions.

“Wal-Mart is interested in total visibility of their supply chain, and Chinese manufacturers will work closely

with them to ensure that visibility," says John Greaves, Deloitte's Global RFID technology integration representative. Members of China's standards working group may be keeping this concern in mind as they work to determine the nature of their RFID standards and tag numbering scheme.

China's adoption of any RFID standards and tag numbering system will be positive for American businesses that use RFID technology, says Greaves. He asserts that American businesses should not jump to the conclusion that China's standards group is deliberately planning to create standards that will be detrimental to non-Chinese businesses and RFID technology vendors.

"I'm sure China's intentions are honorable. China wants to own the domain for several reasons," says Greaves, who explains that the nation wants to make both the products that will require RFID tagging, as well as the necessary RFID tags and readers.

Although it is improbable, Greaves says, China could reject EPCglobal's EPC system and adopt its own RFID tag numbering scheme to identify the manufacturer, product category and the individual item for Chinese-made products. China also could offer a low-cost substitute to the existing international RFID standards, which could increase the supply of technology, and thereby vastly reduce the cost of RFID readers and tags, including those based on international standards.

Greaves advises manufacturers and distributors that use RFID technology to watch the Chinese standards working group closely. Regardless of whether China establishes its own new standards or decides to adopt current international standards, the nation's actions may shift the RFID playing field. Many U.S. manufacturers are in the process of installing RFID-tagging systems at Chinese manufacturing centers to better track products from their point of origin. But because installation of RFID technology at these Chinese manufacturing sites is still about 18 months away, Greaves estimates, U.S. companies still will have time to respond to any change in RFID standards based on the decision of China's standards working group.

On a general level, the Deloitte report offers recommendations to companies regarding other technologies, such as Enhanced Versatile Disc (EVD) and cellular networks. These strategies include collaborating with China's standards groups, devising future business plans with the Chinese market in mind, and investing in emerging markets—in other words, encouraging growth of early markets and establishing control of them early.

The full 16-page report can be downloaded at Deloitte's Web site (www.deloitte.com).

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