

EPCglobal Director Says No Need to Wait for China to Officially Condone EPC

The organization's global development director says the nation's new UHF RFID regulations mean global companies can now use EPC tags and readers to track Chinese-made goods throughout the supply chain.

By Claire Swedberg

June 1, 2007—In April, China's Ministry of Information Industries (MII) approved bandwidth in the 840.25 to 844.75 MHz and 920.25 to 924.75 MHz ranges for use by UHF RFID passive tags and interrogators in that country (see China Approves Requirements for UHF Bandwidth).

Ian Robertson, global development director and Asia Pacific regional director for EPCglobal, says that when he visits Beijing in August, he intends to thank ministers at China's State Radio Regulation Committee (SRRC), which MII oversees. Robertson has been discussing UHF RFID with the SRRC longer than anyone, having first broached the subject in 2004, and he sees China's approval of UHF bandwidth as the fruit of that labor. The three-year effort has included work by Robertson, the SRRC, EPCglobal and global product manufacturers.

In 2004, Robertson served as the RFID director for Hewlett-Packard (HP). At that time, he began seeking permission to use UHF RFID bandwidth in countries in which HP's factories operated and tagged goods destined for U.S. stores. HP, he says, needed UHF RFID bandwidth in China for the seven factories that export products, so that it could tag those products for supply chain visibility.

Robertson says he met with the SRRC and asked for allocation in the 900 MHz band (860 to 960 MHz range). "They informed me there wasn't any bandwidth [available for RFID] in that range and told me 'Good morning.'" In fact, he adds, China had already designated the 900 MHz band for internal purposes, including GSM cellular phone networks.

After that, Robertson says, he "came back and back and back," to the SRRC throughout 2004, in an effort to negotiate the use of the desired RF spectrum. In September of that year, Robertson hosted a meeting with SRRC members to provide them the opportunity to perform frequency testing. A month later, he recalls, EPCglobal asked him to speak on its behalf, as part of its own quest to have China adopt UHF bandwidth for RFID. In December 2004, the SRRC granted Robertson the first temporary license for UHF RFID in his personal name, for use by HP manufacturers for one year. "That set up a precedent," he says, and China began allowing other companies to apply for six-month temporary licenses as well.

Few companies were comfortable with temporary licenses, however, which run the risk of not being extended after the initial six months have passed. Therefore, HP, along with Wal-Mart, Intel and other firms, continued working with the SRRC toward the permanent authorization of UHF RFID bandwidth in China.

"The SRRC was not just deciding what frequencies," says Robertson, noting that other parameters, such as

power levels, also had to be resolved. "So they had to do a fair amount of testing under special conditions." In addition, the ministry had a choice of moving other applications using the 900 MHz bandwidth away from that spectrum, or undertaking research to determine whether RFID could cohabit the spectrum with other preexisting applications. "I know China did quite a lot of testing," he says, though he does not know the results of those tests, or how the nation is making the UHF bandwidth available.

In November 2005, Robertson became EPCglobal's director for global development and the Asia Pacific region. As a full-time staff member under Chris Adcock, the organization's president, he continued his work with the SRRC. "I was still meeting with agencies [within the SRRC] until the end of last year," he says, "when they fairly much knew they would publish [UHF RFID spectrum regulations]."

Robertson sees the release of bandwidth requirements as a nod to the global community from the SRRC, and calls it another sign China has every intention of working with EPCglobal's UHF RFID standard and its ISO equivalent. "The ISO 18000-6 is a global standard," he says. "China has never said, 'You can't use it.'" Each country, he maintains, has to assign bandwidth space within that standard's frequency range (860 to 960 MHz), and China has now done so as well.

While some analysts question why China also approved the 840 to 845 MHz bandwidth—which will not be useful for U.S. companies—Robertson argues that is an unnecessary point. "It's really completely the wrong way of looking at it," he says. "They are a sovereign nation." As such, he says, the country is allocating some bandwidth for internal use, just as countries in Europe and North America have done. (The United States, for example, has set aside the 824 to 849 MHz and 869 to 894 MHz bands for use by cellular phone systems.) "It's far better to acknowledge China has joined the fold, and congratulate them."

Regarding the electronic product code (EPC) numbering system, Robertson says, "no sovereign state has dictated the EPC code. China has indicated they could use their own code, but they have also indicated they would not prohibit EPC."

RELATED_ARTICLES Now that China has approved regulations, sanctioning the use of UHF RFID spectrum compatible with that approved by most other nations, global companies manufacturing products in China can use EPC RFID tags and readers to track goods throughout the entire supply chain—starting with factories and warehouses in China, and ending with distribution centers and retail stores in the United States and other countries. There is no need, Robertson asserts, to wait for China to officially adopt or condone the EPC standards.

Moreover, Robertson argues, the SRRC deserves some respect for its decisions and less speculation as to its motives. "Chinese officials are not silly people," he says. "They want to support export trade."

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