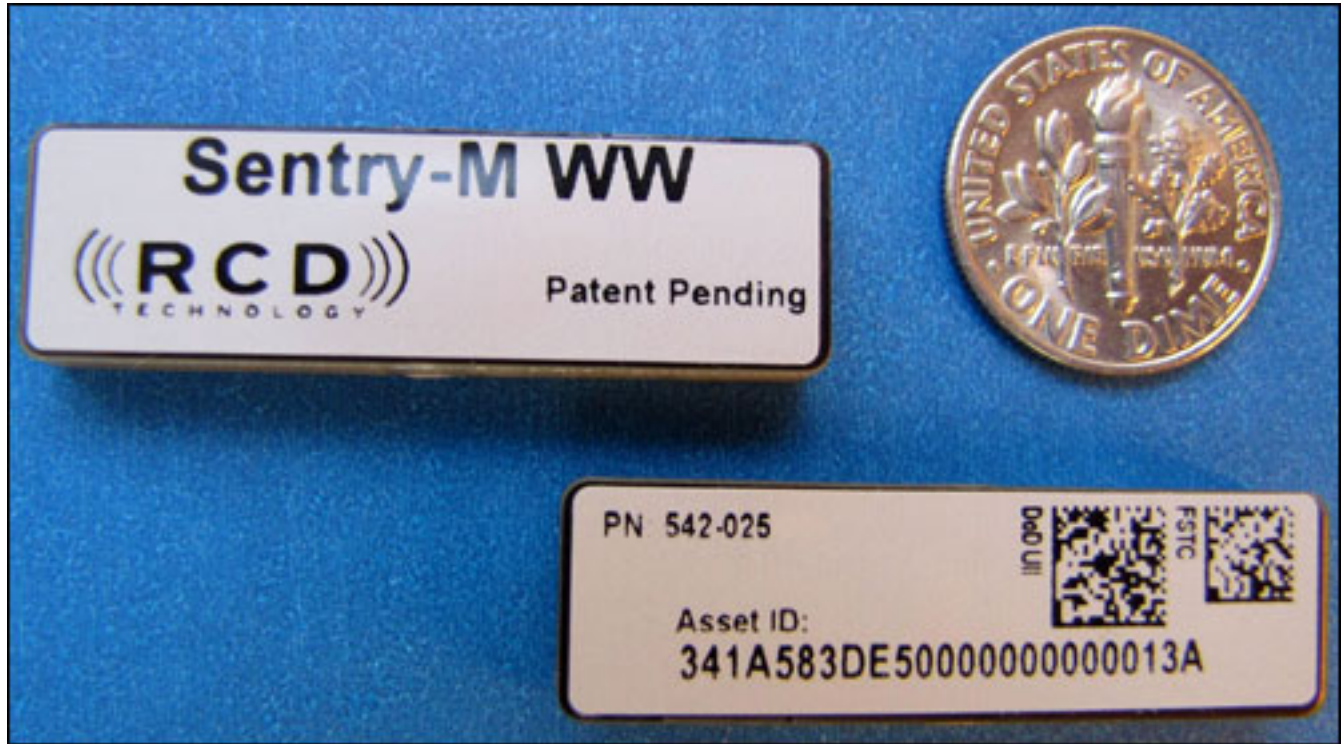


The company's goal is to help financial institutions better account for IT equipment in their data centers.

By Mary Catherine O'Connor

Jan. 22, 2010—A number of financial institutions, including [Wells Fargo](#) ([Wells Fargo Banks on RFID](#)) and [Bank of America](#) (see [Bank of America Deploys RFID in Data Centers](#)) have begun employing radio frequency identification to improve their ability to track and account for IT equipment in their data centers. To make tracking and accounting for these important assets a streamlined, industry-wide practice, financial institutions are looking to [Sun Microsystems](#) and other makers of IT equipment to place RFID tags on their products at the point of manufacture. Sun is presently in the middle of testing systems that would do just that.

Sun (which is being acquired by database company [Oracle](#)) began attaching passive EPC Gen 2 RFID tags to select products late last year, as part of a pilot program. During that program, tags were attached to select items after they were manufactured, and before being shipped to customers. Sun—or its contract manufacturer—would encode a serial number onto each tag. Employees would then collect that number and use it to register the product in software (known as Shop Floor Control) that Sun utilizes to record its manufacturing process. This serial number was also saved to a customer information sheet—a record that Sun creates for every piece of equipment it produces. This record lists all of the major components included in the product.



RCD's Sentry tag

In developing its RFID tagging system, Sun is following the functional requirements and tag-numbering scheme for tagging IT assets developed by the [Financial Services Technology Consortium](#) (see [Financial Consortium Publishes RFID Standards for IT Assets](#)). Wells Fargo and a number of other banks are also employing the FSTC's standard in their internal RFID initiatives.

But according to RFID tag manufacturer [RCD](#), during the first phase of Sun's pilot program, the computer maker found that while the tag it was testing was designed to be read and encoded within a specific range of the ultrahigh-frequency (UHF) band, it required a tag that could be read and encoded in each part of the world, based on the different regulatory requirements for using passive UHF RFID systems in Asia, North America and Europe. Because of this, says Sandra Garby, RCD's co-founder and VP of marketing and product management, Sun asked RCD to customize an RFID tag that it could attach to any of its IT assets, and that could be encoded and read across the worldwide UHF frequency band, from 860 MHz to 960 MHz.

In the United States, the [Federal Communications Commission](#) (FCC) mandates that UHF tags and interrogators use the 902-928 MHz frequency range to transmit signals. And in the European Union, the [European Telecommunications Standards Institute](#) (ETSI) stipulates the 865.6-867.6 MHz band. In Asia, some nations are still solidifying these regulations, but in China, it's 840.5-844.5 MHz and

920.5-924 MHz; in Japan, it's 952-955 MHz; and in Singapore, it's 866 MHz- 869 MHz.

"Because Sun's manufacturing is in Asia and the U.S., but it ships to customers all over the world," she says, the tag it was testing had limited usefulness. "We started talking to Sun about our Sentry tag, which was originally designed for the U.S. band. We were able to quickly make design modifications and prototypes that showed the Sentry tag operated from 860 to 960 MHz."

But Robert Oberle, RCD's co-founder and CTO, says another challenge involved designing the Sentry into a form factor that was both small enough to be attached to any of the IT assets that Sun makes, while also maintaining the tag's RF sensitivity, so that it could be read from a minimum of 6 feet from a fixed-position RFID reader and from 3 feet when using a handheld interrogator—as per the FSTC's requirements.

According to Sun, the company is now preparing to resume its RFID tagging pilot, using the RCD Sentry tag to track a specific, undisclosed product that is not yet being shipped to customers. Sun declines to provide any additional information, however, regarding this product. Garby says she believes the IT firm will resume its pilot program, using the RCD tag, by late spring of this year.