

# EV3 Uses RFID to Streamline Inventory

The medical device maker has realized important business benefits by employing RFID to track its stock of stents and other products used for treating vascular diseases.

By Mary Catherine O'Connor

July 15, 2008—[EV3](#), a manufacturer of stents and other medical devices used by vascular surgeons, doesn't just hire salespeople to sell its wares. It employs highly trained experts.

"Our sales representatives go into the operating room with a surgeon—they get scrubbed and gowned—and they are there to support the medical staff," says John Nolan, EV3's VP of global supply chain. "They recommend which [EV3] device to use, and how to use the device." Given the high level of expertise and training its reps receive, having them spend many hours each quarter performing physical inventory-counting of EV3's stock at the hospitals they serve makes little sense. Therefore, the company turned to RFID.

In the third quarter of 2007, EV3, based in Plymouth, Minn., began working with [WaveMark](#), a provider of RFID-based inventory management solutions for the health-care industry, to develop a means of automating its inventory systems—not only for its field staff, but also for workers at its main distribution center, located in Brooklyn Park, Minn.

"We knew that some of our competition had its staff scan the bar codes [on device packaging] using handheld devices in the field," Nolan says, "but we felt that that was old technology, and we wanted to leap-frog the competition." The use of RFID tags, he adds, is faster and more accurate than conducting physical counts.

The WaveMark solution consists of proprietary software and high-frequency (HF) handheld RFID interrogators made by [Feig Electronic](#) to collect data from 13.56 MHz passive HF tags manufactured by [UPM Raflatac](#). To begin testing, EV3 placed the tags—which comply with the ISO 15693 standard—on select field stock. Some of the company's sales team were trained on how to use the handheld devices to read the tags and transmit the data to the WaveMark software, which compiles the data collected by all of the sales reps into a central repository.

The system proved effective, Nolan says, and EV3 quickly rolled the system out across the United States, tagging all of the stock, and equipping and training all of its salespeople. At the manufacturer's main distribution center, employees manually attach an RFID label to the outside packaging of each medical device the company sells, then use the handheld to read the tag's ID number. The tag ID is then associated with that specific type of medical device and uploaded to the proprietary software.

After being tagged, the devices are sent to one of three locations: EV3's distribution center; its customers (hospitals), which receive the goods on consignment; or what is known as "trunk stock," which is placed in a portable case that the field staff bring with them when visiting customer locations (and for device support during surgery, as noted above). The field staff use the handhelds to perform inventory on both the trunk and consignment stock, and warehouse workers utilize them to track the devices as they are shipped out for consignment or trunk stock, and again when placing them into stock at the DC.

Later this month, EV3 expects to begin moving the tagging of devices back to the point of manufacture, which the company says will provide an added level of visibility to the RFID-based system. The unique ID number of the tag attached to each device will be captured as it leaves the manufacturing facility, then read at the point of receipt at the DC, and so forth. The EV3 software will store all of this tracking data and link it to EV3's enterprise resource planning (ERP) software, where it can be associated with customer or production orders, as well as shipping records. In the past, the company has employed bar codes to track the devices as they are shipped from the point of production to the DC.

RELATED\_ARTICLES Aside from saving EV3's field staff valuable time, Nolan says, the RFID system has also increased the inventory accuracy of the company's consignment and trunk stock, resulting in fewer inventory write-offs. The next move on the horizon, he notes, will be to begin using the RFID tagging and tracking system for the manufacturer's European operations, based out of a distribution center in the Netherlands.

While the RFID system currently provides a competitive advantage, Nolan thinks that using the technology for tracking the medical devices it sells will ultimately become a way of doing business across the industry. "There is some consolidation going on in the industry," he states, "and some of our customers are making RFID-traceability a requirement for medical device suppliers."

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