

RFID Aided Marines in Iraq

Marines on the ground in Fallujah had real-time visibility into the location of replenishments for the first time in military history.

By Mark Roberti

Feb. 21, 2005—It would be an exaggeration to say radio frequency identification technology was the U.S. Marines Corps' secret weapon during the battle for Fallujah in Iraq late last year. But the technology did give the Marines real-time visibility into the location of en route replenishments during the battle. It was the first time battalion commanders on the ground could see and control the flow of replenishments, according to Col. Mark Nixon, head of the Marine Corps' Logistics Vision and Strategy Center.

"War fighters have to be able to influence the distribution pipeline, and RFID will enable them to do that," he said, speaking at the U.S. Department of Defense's recent [RFID Summit for Industry](#). "It's still in its infancy."

Nixon said that when the Marine Corps went to Iraq, some units had active tags not just on pallets, but on vehicles. RFID readers were set up at a distribution center in Kuwait, at the Iraq-Kuwaiti border and at checkpoints along the main arteries into Iraq. When trucks passed the readers, the location of the goods they were carrying was updated in the U.S. Department of Defense's In Transit Visibility network database. That enabled commanders on the ground to see the precise location of replenishments needed to sustain operations.

"Just a few years ago, we had no idea where cargo was [in our supply chain]," he said. "RFID has revolutionized how those guys are doing it down on the ground. It's revolutionized the way we are doing things."

Nixon said the Marine Corps has installed RFID readers at four major sites overseas and that it is adding RFID readers to two more major support sites. Battalion commanders can access the In Transit Visibility system to see where supplies are in real time.

"That allows commanders to reduce how many parts they order because they are no longer afraid that they're not going to get what they need," he said. "In the past, we've found examples where a crucial part or needed supplies were ordered a dozen times because the commander in the field had no visibility. He now has confidence in the system because he can see [his requested part or shipment] move."

Achieving visibility requires not just installing the readers and putting tags on supplies, but also integrating the data from the RFID readers with legacy systems and training people on how to use the technology. "One unit was using the active tags and not passing data," Nixon said. "We knew a tag was moving, but we didn't know what it was attached to. That unit didn't want people to see what they were moving. We have to have appropriate training."

Nixon said that integrating active tags on pallets and transport containers with passive tags on cases stacked on the pallets is critical to achieving a greater level of visibility, because commanders on the ground will be able to have more precise information about what supplies are on their way. Data about what cases are on a

pallet will be written to a pallet tag, and data about the pallet tags will be written to container tags.

The DOD's goal is to minimize human involvement when collecting data on shipments and their movements. If identification and location data for shipments can be acquired through automatic scanning of RFID tags, that increases the accuracy of the data and speeds the movement of goods.

"We need to integrate the information [with our back-end systems] and make the data available to the war fighter so he can influence the battle through logistics," Nixon said. "It doesn't seem like a big thing, but it's an enormous change."

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