

USAF Cargo Movement Operation System Upgrades to RFID

The Air Force is swapping out its current label printers for RFID-enabled models, and expects the use of EPC Gen 2 tags will streamline the shipment of supplies.

By Beth Bacheldor

Sept. 19, 2007—The U.S. Air Force is deploying EPC Gen 2 RFID printer-encoders from Zebra Technologies at more than 214 bases around the world, as part of its USAF Cargo Movement Operation System (CMOS). The printer-encoders will be used to create RFID-enabled labels that will be affixed to pallets of goods the military branch ships out to support its operations.

CMOS is a shipping application used by the USAF to track the movements of materiel. The RFID initiatives, part of the U.S. Department of Defense's RFID program, are designed to improve efficiencies within the USAF's shipping processes. The DOD's RFID program includes the use of passive 915 MHz EPC Gen 2 RFID tags and active 433 MHz RFID tags, compliant with the ISO 18000-7 standard, to track supplies traversing the DOD's supply chain. The Automatic Identification Technology (AIT) Office at Wright-Patterson Air Force Base is responsible for implementing a plan promoting the use of RFID-based auto-ID technology in the USAF.

The Air Force is swapping out its current Zebra printers, which print only bar codes and human-readable text, with the company's R110Xi Series of RFID printer-encoders. The rollout began Sept. 1, says Greg O'Connell, Zebra's manager of government sales, and is slated for completion by year's end. The agreement is what is known as an Indefinite Delivery/Indefinite Quantity (IDIQ) contract, he says, "so we would expect [the USAF] to have needs for several years to come."

The printer-encoders will enable the USAF to print linear and 2-D bar codes and human-readable text on the labels, and to encode their embedded RFID tags with unique ID numbers. In a back-end database, the IDs will be associated with detailed information about the goods being shipped on the pallet.

Without RFID, O'Connell says, personnel with handheld bar-code readers "would have to stop, find the labels and then manually scan them." He adds, "Now, they will be able to scan the labels without being limited by the line-of-sight requirements [of a bar code], so they'll be able to move the pallets faster."

RELATED_ARTICLES According to O'Connell, the choice to implement the Zebra R110Xi Series makes sense for the USAF, particularly because it was already using Zebra printers that had been integrated with the CMOS application. Although the USAF is upgrading to the new RFID printer-encoders, he says, only minimal changes to CMOS will be necessary. In addition, the R110Xi printer-encoders, intended for mission-critical apps, are built with a solid chassis and all-steel construction, and can be up-and-running around the clock.

"[They are] designed for high reliability," O'Connell says. "Since the printers are printing labels for shipping,

if the printers were to go down, then [the USAF] couldn't ship. Also, our printers are tag-agnostic. We really don't care which passive RFID inlay the customer has chosen, as long as it is an EPC-compliant tag. So that gives customers the flexibility to pick the tag that works best for their environment."

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