

The clothing maker says passive tags help it provide correctly fitting uniforms to recruits more quickly.

By Beth Bacheldor

Jan. 18, 2007—[Yakka Apparel Solutions](#), a wholly owned subsidiary of Australian industrial apparel company [Yakka](#), is using RFID to help outfit new recruits in the [New Zealand Defense Force](#).

The RFID system is designed to help the company fit, manufacture and deliver uniforms to soldiers within five days of when they report for military duty, according to Simon Harvey, managing director of Yakka Apparel, which is based in Auckland, New Zealand. The implementation replaces time-consuming and error-prone processes requiring military personnel to hand-write notes indicating the sizes of each recruit's entire uniform, from undergarments to shoes, then manually enter that data—up to 32 lines in an electronic form—into a computer. "We saw RFID as a means of enhancing speed and accuracy," says Harvey.

Yakka affixes passive EPC Gen 1 Class 1 RFID tags onto garments and shoes that serve as sizing stock. Each tag contains a unique number representing the garment's size and stock-keeping unit (SKU). The military keeps the tagged sizing stock on hand, so new recruits who arrive for fittings can try on different garments to determine their correct size for each piece of a uniform. Every recruit is also given a wristband embedded with a Gen 1 Class 1 RFID tag containing a unique number associated with that recruit's name and other pertinent information.

Once the recruit has been fitted with the appropriate garments, a handheld RFID reader captures the tag numbers of the garments and the soldier's bracelet. That data populates a Scale of Entitlement, an electronic form listing all items the recruit needs, along with the size of each item. "Each item on the scale must have a size allocated to it by the scanning process, thus ensuring completeness," Harvey explains.

The Scale of Entitlement is used to generate a purchase order in XML format in the New Zealand Defense Force's back-end computer system. Once the order is authorized, it's automatically sent via an intranet to Yakka's warehousing system.

Yakka initially considered adopting bar codes to improve the sizing and ordering procedures used to outfit recruits, but opted not to, because bar codes cannot be scanned through layers of clothing, nor do they hold up in the wash.

Thanks to the RFID tags, recruits can now try on the entire uniform, with the size of each article of clothing recorded while the recruit is still wearing it. "We can scan through a number of layers of clothing worn at one time, and the chips can survive commercial laundry of the garments after each recruit intake," says Harvey. "The process eliminates data entry, saves time and ensures accuracy and completeness."

Yakka worked on the RFID implementation with IT provider [Integral Technology Group](#). The clothing supplier hopes to increase its use of RFID, but Harvey says it has "no concrete plans" to do so at this point.