Kmart Australia changes store shelves for RFID rollout

By Ry Crozier (/author/ry-crozier-149259) on Aug 29, 2022 3:11PM

To improve tag readability by autonomous robots.

Kmart Australia is changing in-store shelves to wood and using foam underlays in the back-of-house to improve the readability of radiofrequency identification (RFID) tags attached to apparel.

The retailer is in the process of tagging all apparel in its stores to be read by a robot called TORY, giving it a more accurate picture of in-store inventory.

RFID rollout manager Adam Gradon told an RFID Coalition meeting convened by GS1 Australia late last week the retailer would have 100 percent of apparel tagged at vendor level - that is, at the overseas manufacturer - and autonomous robots capturing data from the tags in all Australian stores by Christmas.

However, he revealed that Kmart is having to change some of its in-store fixtures and fitouts to ensure that tags are readable by the robot.

RFID tags and metal don't mix - the metal can reflect attempts to read the tag or otherwise create interference for the tag antenna.

"For those who have been to a Kmart store, a lot of our apparel sits on metal shelving, so our solution for that has been to replace the metal shelving with wooden shelving," Gradon said.

"In our back-of-house we also have metal - it's funny how much metal you find in the back-of-house when you start to do RFID and you wish it was something else.

"We've had to apply some [remediation] methods there, too. What we do is we place foam mats under our metal shelving which gives us a barrier to the metal."

Gradon said that additional optimisation efforts had focused on improving the certainty of tag reads by TORY as it traverses the store each night.

"That's probably been one of the most challenging parts of the process but also one of the most rewarding because once you can overcome those challenges in simple ways you get a really great [outcome]," Gradon said.

Ther RFID tagging effort was piloted in Seattle at Kmart Australia's anko-branded store. The concept has since been transported to Australia, albeit with some tweaks as the anko stores have a smaller footprint and lower volume of stock to contend with.

One of the keys to success is having all of Kmart's vendors - based in countries such as China, India and Bangladesh - attach the RFID tags at the point of manufacture.

Checkpoint Systems, whose apparel label solutions business has been involved in the work since the early beginnings at anko, has used its global reach to work closely in-country with vendors on simple processes to attach the tags to items.

Some items, such as cutlery sets, required specific training on tag attachment, since the items themselves could cause interference, in addition to the shop fixtures they were displayed on.

Gradon added that the deployment of RFID technology had "provided a foundation for a multi-year transformation of the instore customer experience" at Kmart Australia, which would deliver "operational efficiencies and even greater value for our customers."