Electronic Dictionary Maker Spells Out RFID Plans

Group Sense, a Hong Kong-based electronics manufacturer, is about to start a trial tracking cases of products in its factory and DC.

By Jonathan Collins

Aug. 21, 2006—Group Sense (International) Ltd. (GSL), a Hong Kong-based manufacturer of electronic dictionaries and other handheld information devices, is about to start a trial that will see the company move away from using a handwritten system to track products, and toward one that utilizes radio frequency identification.

Currently, GSL workers write numbers by hand on cases of electronic dictionaries to track them at the company's manufacturing plant in DongGuan, China. During a six-month trial set to start in October, that process will be replaced for all cartons distributed in Hong Kong. Throughout this period, labels with UHF EPC Gen 2 RFID inlays and printed with bar codes will be attached to each carton.

"GSL's logistics process is now very manual, and they want to see if RFID can help provide a far better and more visible supply chain," says Hoi Chen, business manager at Sedna Systems, which is designing and deploying the trial RFID implementation, and also providing middleware. Group Sense and the EPCglobal Hong Kong division of GS1 Hong Kong are funding the trial.

During the six-month project, Group Sense will tag around 50,000 cases and track them from the end of the production line to the moment it ships them from its Hong Kong distribution center to customers in Hong Kong. Details of the implementation are being finalized, but there will be five points in the factory where the cases' tags will be read, and another two at the Hong Kong distribution center.

Cases will be tagged at the end of the production line, as they are loaded with up to 12 handheld electronic dictionaries. A Paxar printer will encode RFID labels and print them with bar coding and some human-readable text. The company will read the tags to verify that they were successfully encoded, then read them as cases leave the production area and move into quality control. During quality control, each case will be weighed and the EPC number on the case's RFID label will be read once more. The cases will then be sent to the plant's finished-goods warehouse, where a fixed portal will read the cases' tags. Workers will use a handheld interrogator to read the tags a final time at the warehouse, as the cases are loaded onto a truck for the journey to the Hong Kong distribution center. At the DC, a fixed portal will read the tags on cases as they arrive, and handheld readers will be used to read the tags again as cartons are dispatched to customers.

The deployment will use Sedna's Dataplex Edge Server software to capture, filter and share the RFID-collected data with Group Sense's existing ERP software, as well as custom applications for the tagging and reader operations. The project will use readers from Symbol Technologies. Data collected at the manufacturing site and at the DC will be shared with Group Sense's headquarters in Hong Kong using the EPCglobal Network's Electronic Product Code Information Services (EPCIS), a network infrastructure for

exchanging and querying RFID-related data. It will also employ the Object Naming Service (ONS), a system for looking up an EPC number and pointing computers to information about the item associated with the code. EPCglobal HK will host the EPCIS and ONS servers for the pilot projects.

At the end of the six-month trial, GSL will analyze the results to determine the value of extending RFID tagging within its operations.