

CASE STUDY



Tracking Spirits

GlobeRanger and Metalcraft team up to provide ID solution to whiskey distillery

Making whiskey is an age-old process that large distilleries have down to a science. One large US-based distillery wanted to improve their data collection process by integrating RFID technology to track and utilize data about a critical asset in the production process – the barrel.

To accomplish this, they turned to GlobeRanger, a provider of intelligent edgware for IOT enablement and asset inventory management for manufacturing, distribution/logistics, aviation, construction, healthcare and defense.

GlobeRanger set out to develop a system which would assist their customer in liquid loss prevention by capturing as many data points as possible during the process. Liquid loss can happen several different ways from evaporation due to environmental conditions, aka “angel’s share,” to inefficiencies in the harvesting process. Regardless of how the leakage happens it can be an expensive issue for the distillery to manage in this highly regulated industry, as well as potentially a considerable loss of revenue.

Proper barrel management is essential in liquid loss prevention. Distilleries constantly reuse barrels and need to know where they are stored and for how long. “The barrel ID is like a birth certificate and the data points are a breadcrumb trail tracking its history,” said Joe East, Director of Customer Support at GlobeRanger.

The project has several phases. The first phase involved identifying over 2.1 million barrels at three different locations with a unique identifier to perform accurate inventories. The second phase involved identifying the barrel and its contents during filling. The third phase involves the harvest process. Harvesting occurs when the liquor is put into the barrels and stored. Ensuring contents are not mixed is essential as mixing changes the overall flavor profile potentially compromising more expensive brands with lower level liquor and a resultant lower price level.

GlobeRanger worked with Metalcraft to develop the RFID tag used to track the whiskey barrels. “We’ve worked with Metalcraft for over seven years and have a long-standing relationship,” said East. “We work together to find the right RFID tag for the application and industry.”

The team at GlobeRanger gave Metalcraft the criteria their customer developed. “Metalcraft showed a lot of ingenuity in developing the product,” said East.

The customer needed a tag that wouldn’t tear plus it had to have both bar code and RFID. In addition, the tag had to be printed using FDA-approved ink in case it came in contact with any product.

Surviving the environment wasn’t the only concern for Metalcraft when developing the tags. The labels needed to work with the automation equipment installed at the distillery. Metalcraft engineers made material and liner adjustments to ensure a smooth process. They also helped develop a quality assurance process, according to East.

The team reports the solution is working well and they are already looking at additional enhancements to the application. Future plans include incorporating IOT (Internet of Things) devices to track environmental data, i.e. temperature and humidity to determine if there is any impact on the product.

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JOE EAST

Director of Customer Support at GlobeRanger

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