



Transforming stock management with IoT

Jim Beam® was tracking the production, storage, and distribution of millions of barrels using paperwork-heavy processes, risking human error and stock loss. It wanted to find a more efficient, transparent, and accurate way of keeping track of inventory and turned to GlobeRanger iMotion®. This connects sensors and Internet of Things (IoT) devices to gather rich data on critical assets, enabling total visibility of the entire production process.

About the customer

In 1795, a farmer and grain mill operator named Jacob Beam produced the first barrel of whiskey that would become Jim Beam, the world's #1 selling bourbon. Suntory was founded in 1899 by Shinjiro Torii, who created the first whiskey to suit Japanese palates. Today, Beam Suntory is the world's third largest premium spirits company with its portfolio of world-renowned bourbons, Japanese whiskies, single malt scotches, tequilas, and cognac.



Industry: **Manufacturing**



Location: **USA**



People: **40,000+**



Web: **beamsuntory.com**

Challenge

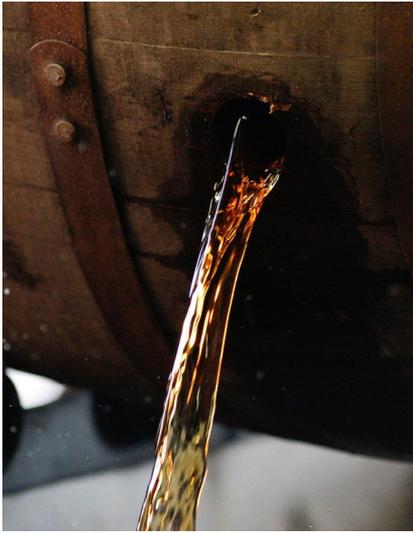
Jim Beam relied on paper-based monitoring of bourbon production and distribution, and wanted a more efficient tracking method.

Solution

- GlobeRanger iMotion connects sensors and IoT devices to gain rich data on critical assets

“It was important that we had full IoT capability and the ability to integrate with our system of record, which GlobeRanger delivers.”

Nick Moberg, Director of Digital Platforms, Beam Suntory



1 million

barrels produced by Jim Beam in 2019

Introducing precise production tracking

Managing the production of millions of barrels of bourbon across multiple warehouses and distilleries is a challenge. Each barrel, containing 53 gallons, must be tracked from new oak to filling, to aging until liquid dump and the bottling process begins.

Traditionally, Jim Beam's warehouse teams would use paper forms to track the production and movement of the barrels, and then document those in their system of record. However, this process was time-consuming and prone to errors.

“If a barrel is losing liquid, we need to mark the barrel for repair; if a cask is matured, it needs to follow the appropriate dump order,” explains Nick Moberg, Director of Digital Platforms at Beam Suntory. “We looked at a number of track and trace solutions and decided RFID tagging would be the best route. It was important that we had full IoT capability, the ability to integrate with our system of record, and a partner with true global reach.”

Automated and seamless IoT monitoring

Beam Suntory chose GlobeRanger iMotion IoT Edgware platform as the software backbone of the new platform. It enables IoT through device and data connectivity and management for sensors and other devices, and has proven its stability, flexibility, and ease of use through more than a decade of enterprise installations in defense and commercial sectors.

Now, new oak barrels arrive at each Kentucky site, are filled, and an RFID tag is automatically affixed and validated by GlobeRanger. If valid, the supervisor creates a barrel fill form, detailing the plant, material, start date, and quantity. The fill order is integrated with the GlobeRanger system, which auto-populates the batch information.

“RFID antennae are embedded throughout the fill area, and handheld scanners are used in the warehouses so that we have total visibility of inventory at every step of the liquid maturation process,” continues Moberg. “It provides a digital trail that allows for the automatic movement of liquid between plants, warehouses, and trucks.”

Accurate and transparent tracking of every item

Every detail of the production process is mapped and available via a single pane of glass so that wastage is eliminated, and each barrel location is identifiable in near real-time: “When you are dealing with millions of items, they have the potential to be misplaced, however, now we have the who, what, where, and how regarding every barrel we can track down errors and answer questions effectively,” says Moberg.

Beam Suntory is also impressed with GlobeRanger's commitment to co-creation and the collaborative way in which it approached the project. It is looking at the next step in its IoT digital transformation journey, wherein the 'liquid lifecycle' becomes clearer to the consumer. Current plans are to build another automated barrel fill process for its Baker's Single Barrel product and allow consumers to digitally trace their bottle through its history.

“We like to tell the brand story that showcases the art, science, and craft behind the production of our market-leading bourbon, and we want to tie that story to each individual bottle,” concludes Moberg. “It is an industrial IoT solution that not only keeps track of production but can also help us bring extra life to our brand.”

In collaboration with



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