Smart Kegs Help Beer Industry Capture Every Last Drop of Profit

With the SteadyServ iKeg* and Intel® IoT Gateways, retailers boost revenue on draft beer by 12 percent in 90 days[1]

By measuring inventory, depletion, and sell-through velocity in near-real-time, iKeg* can show a beer's profit margin and performance by ounces poured.

The Internet of Beer Helps an Industry Maximize Profits

Draft beer is often the greatest profit center for bars and restaurants. Retailers, distributors, and brewers need better ways to maximize those profits by tracking per-tap sales and improving inventory management. When it comes to using smart technology to drive business value in new ways, one innovator is serving up the perfect example. SteadyServ Technologies collaborated with Intel to develop a cloud-based draft beer insight system that's revolutionizing the way the entire industry manages draft beer.

The SteadyServ iKeg* system uses sensors to automatically detect the amount of beer in a keg. Sensors placed under each keg transmit data to an Intel® IoT Gateway. Data is then routed to cloud-based software. Users can easily see which beers are selling—along with how to maximize profits and minimize waste. Intel's IoT solutions provide security from the edge to the cloud to protect competitive data.

SteadyServ iKeg is an IoT application that's made a big difference. SteadyServ has found that retailers see an annual return on investment of up to 425 percent after deploying the system.

Lack of Data Leads to Waste

Beer is big. With craft breweries on the rise, retailers can choose from more brands and styles than ever before, making the need for a better way to monitor and manage inventory even more evident. In addition to offering the best beer mix, retailers need to know how much beer they have on hand. Kegs are often returned to the distributor with usable beer still in them. By zeroing in on the causes of waste, retailers can boost profits and lower the cost of goods.

The old methods of inventory management—lifting a keg to estimate how much is left, or relying on memory to know which beers are the best sellers—depend too much on human behavior. A "first in, first out" mentality to tapping kegs adds to the problem. To capture profits, retailers need a more accurate way to know when and what to order.

Further up the supply chain, distributors want to know what they have in the retailer's cooler and which draft combinations are driving sales. Brewers want to know which of their beers are selling best—and which are trending down. But point-of-sale (POS) data from bars and restaurants is usually about three months old before it's available to brewers or distributors. It's a costly delay that can hamper decision making.

Sensors Provide Draft Beer Insight

To revolutionize how beer is managed, SteadyServ Technologies collaborated with Intel to develop its cloud-based iKeg system. After spending months in research—weighing the specific gravity of various beers, studying the types of vessels each variety comes in, and logging other important details—SteadyServ developed smart sensors that can detect the amount of beer in each keg.

Now, retail employees simply place a keg on a circular iKeg sensor and open the iKeg app to match and record the beer. The sensor automatically detects the keg level and transmits this information to an Intel IoT Gateway, which routes data to cloud-based software that integrates with the retailer's POS system. A user-friendly app keeps track of each keg on tap and shows how much is left, so retailers always know what's available. In addition to reporting how much beer is left in a
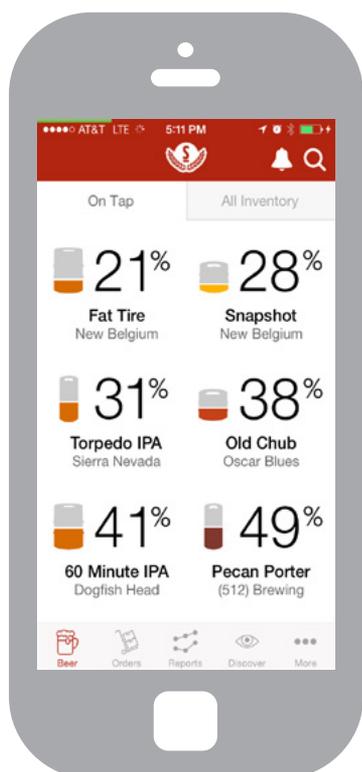
keg, in-app reporting provides customers with freshness data and alerts to advise bar staff when beer is approaching its freshness date.

Since its launch in 2014, the SteadyServ iKeg has been deployed in hundreds of establishments across the U.S. and internationally, from local bars in San Francisco to some of the largest pubs in Ireland. But it's not just catching attention from retailers. Reyes Beverage Group, the world's largest beer distributor of brands that include Heineken and MillerCoors, is helping fund iKeg deployments at its retailers' locations to boost market share and minimize waste.

Inventory Management Pays for Itself

The iKeg system generates valuable data for all three levels of the beer industry. By measuring inventory, depletion, and sell-through velocity in near-real-time, iKeg helps users see a beer's profit margin and performance by ounces poured.

It's data that makes a big difference. SteadyServ has found that within 90 days of deploying iKeg, retailers are seeing their gross revenues on draft beer increase by as much as 12 percent.[1] It also helped retailers realize an annual return on investment of up to 425 percent after deploying the system, as well as a 5–7 percent reduction in cost of goods sold, thanks to less waste and SteadyServ's draft optimization insights.

Boosting retail profits

By acting as a watchdog for waste, iKeg helps bar and restaurant managers prevent bad pouring, theft, or issues with tap lines. Regular reports show sales, profit, and waste per tap, so managers can see a true pour cost.

Suggested ordering and draft optimization reports help retailers ensure they always have the right beers at the right time to maximize sales. SteadyServ aggregates transactional data from POS systems and overlays it with unstructured data, such as weather and events, to provide insights into which styles a retailer should offer. Retailers receive reports and alerts on their mobile devices and also have access to rich information about their beers from SteadyServ's BreweryDB* database.

Helping distributors compete

The distributor tier of the beer industry is highly competitive, and mistakes are costly. Distributors struggle to get enough inventory for popular beers and suffer from overstocks in less popular products. The iKeg system shows distributors which beers and styles are currently selling best in a local area—not what sold a month ago. Reports also show which products are in a particular retailer's cooler. This information helps distributors optimize purchases from brewers, control costs, and determine which beers could sell at a higher price.
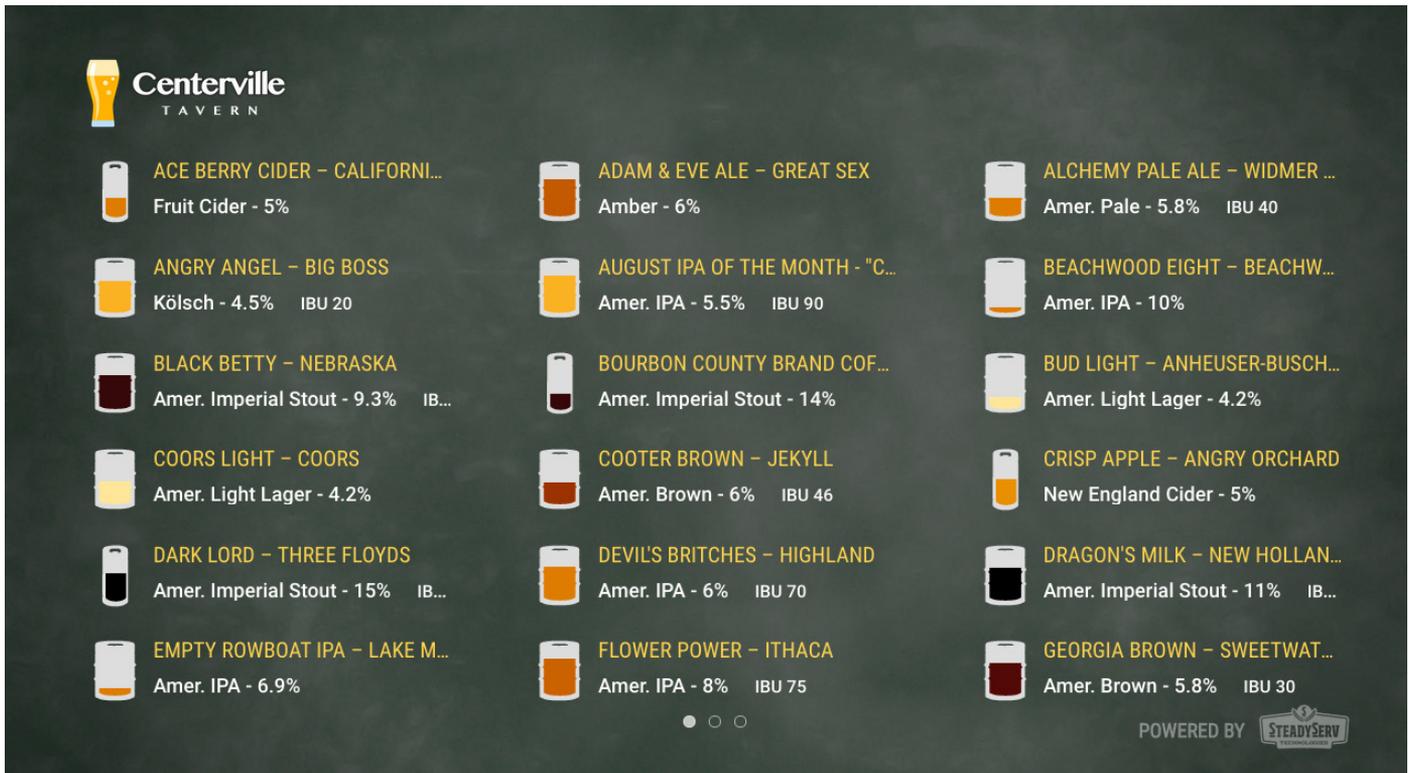
Figure 1. The iKeg* app gives retailers an at-a-glance view of inventory levels.

Figure 2. Digital signage automatically updates the beer menu when a new keg is tapped.

Providing market data to brewers

Breweries can use iKeg reports to get accurate, timely data about on-premise sales and make better decisions about how much of each beer to produce, how much raw material to buy, and how to best allocate marketing dollars. Brewers can also know which distributors are low on inventory or are seeing a slowdown in sales within specific retailers or geographies. Beer producers and distributors can even use the reports to take a proactive role in helping retailers optimize their sales.

Offering dynamic menus with digital signage

Many retailers rotate beer varieties on a weekly basis. SteadyServ has launched digital signage to make it easier for restaurants and bars to show their customers what's on tap. These digital beer menus are tied into SteadyServ's BreweryDB database, the retailer's POS system, and their iKeg system to show a dynamic draft beer menu that updates every time a new keg is tapped. It's the easiest way to show customers and staff what's available.

SteadyServ iKeg and Intel IoT Gateways

To develop its iKeg system, SteadyServ started with high-performance IoT technologies from Intel, which span from sensors and devices at the edge of the network to the cloud. Intel's open platform allows innovators like SteadyServ to focus on connecting and managing devices, delivering secure data to and from the cloud, and increasing business value through analytics.

The SteadyServ iKeg system includes:

- A circular iKeg weight sensor
- Individual RFID sensor tags on each tap line
- An Intel IoT Gateway that aggregates, filters, and encrypts data from iKeg sensors and sends it to the cloud
- Wireless communication from iKeg sensors to the gateway
- The SteadyServ cloud infrastructure that pairs sensor data with external data to provide reports to users through an Internet portal and mobile application (available on Android* and iOS)

Intel IoT Gateways serve as the on- and off-ramps for SteadyServ's iKeg information. The gateways transmit data only when an event occurs—for example, when a keg's weight changes—rather than sending a constant stream of data. This frees up bandwidth and allows SteadyServ to double the number of sensors per gateway.

Intel's IoT solutions provide hardware-assisted security, integrated with software to offer world-class protection. Information is hosted in data centers powered by Intel® Xeon® Phi™ coprocessors and Cloudera data management software. This top-notch security and data management is critical to SteadyServ's customers, who must protect their valuable, competitive data.
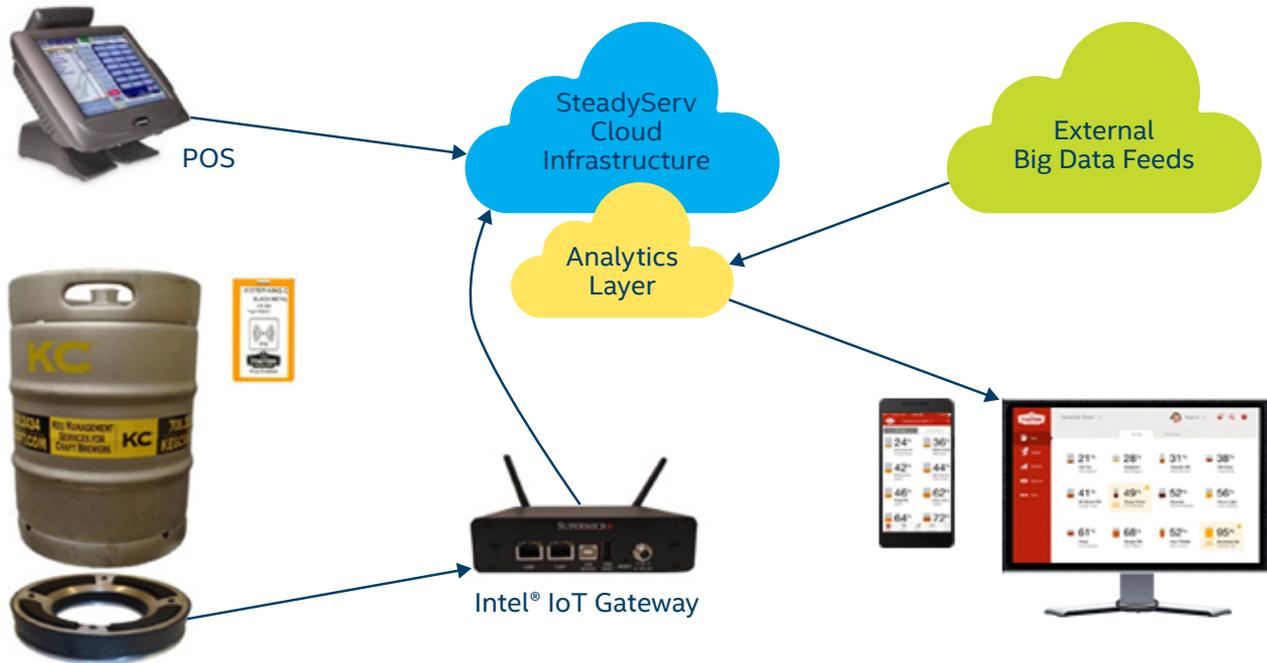
STEADYSERV IKEG* SOLUTION ARCHITECTURE

Figure 3. SteadyServ iKeg* sensors automatically detect the amount of beer in the keg. Data is transferred to an Intel® IoT Gateway, which routes information to cloud-based software.

INTEL® IOT GATEWAY

Along with providing essential connectivity, the Intel® IoT Gateway acts as a data router and filter between data-generating sources—such as iKeg* sensors—and the cloud. It enhances data security, accelerates actionable insight, and more importantly, saves money. With the Intel IoT Gateway, companies can securely transfer only data that has operational relevance to the cloud, lowering costs for data transmission and cloud storage.

A Better Way to Tap Into Profits

Using the innovative SteadyServ iKeg system with Intel IoT Gateway technology, the industry can now collect and aggregate data from bars and restaurants globally, and in a timely and efficient way. With iKeg, the days of manually shaking kegs and "guesstimating" inventory are over, replaced by sophisticated analysis and forward-looking intelligence.

Learn More about IoT

For more information about Intel IoT technologies, visit intel.com/iot. To learn more about Intel IoT Gateways, visit intel.com/iotgateways. To learn more about the SteadyServ iKeg, visit steadyserv.com/category/ikeg.

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