

# FRIDGELOC CONNECTED COOLER



## *Case Study for IoT deployment*

January 2021

## **SAB DEPLOYS CONNECTED COOLER**

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### **Background**

South Africa has been home to The South African Breweries (SAB) since the company's humble beginnings over a century ago in the midst of Johannesburg's pioneering days of the gold rush. Their history can be traced back to Charles Glass and the Castle Brewery that he started in 1888. Glass insisted that his brewery sell only the finest beers, which were highly sought-after by the 200 pubs that had sprung up in the city at the time. That level of quality has stayed with it since the beginning. Today SAB is a market leader in beer sales volumes not only in South Africa but the entire continent of Africa and large parts of the world. In 2016 SAB Miller was acquired by Anheuser-Busch InBev (ABInBev) for \$107 billion to form the world's largest beer



brewer. When AB InBev bought SABMiller, it cited forecasts that beer sales in Africa would grow by nearly three times the global rate between 2014 and 2025. About a fifth of the industry's revenue in Africa, and a quarter of the profits, come from South Africa.

## Problem Statement

SAB a wholly owned subsidiary of ABInBev, the world's largest beer brewer, faced significant costs to locate and verify their coolers that are deployed across South Africa, Africa and the world. They use the coolers to ensure consistent customer experiences of being served a cold beer maintained at optimum temperature for maximum enjoyment. They own the entire fleet of over 100,000 coolers deployed across the length and breadth of South Africa. It costs SAB significant man hours to do in field physical corroboration of their cooler fleet annually for audit purposes mainly.



Maintenance is reactive and only done when a pub or tavern owner calls SAB to log a call that the cooler is not working.

A large number of their coolers disappear annually costing them millions to replace without the ability to hold anyone accountable.

Outlet owners keep on putting the coolers off when the establishment is closed that could result in cloudy beer being served.

## IoT Solution

SAB chose to use the CIRT Fridgeloc Connected Cooler to pilot 105 coolers spread across South Africa to monitor the following key attributes:

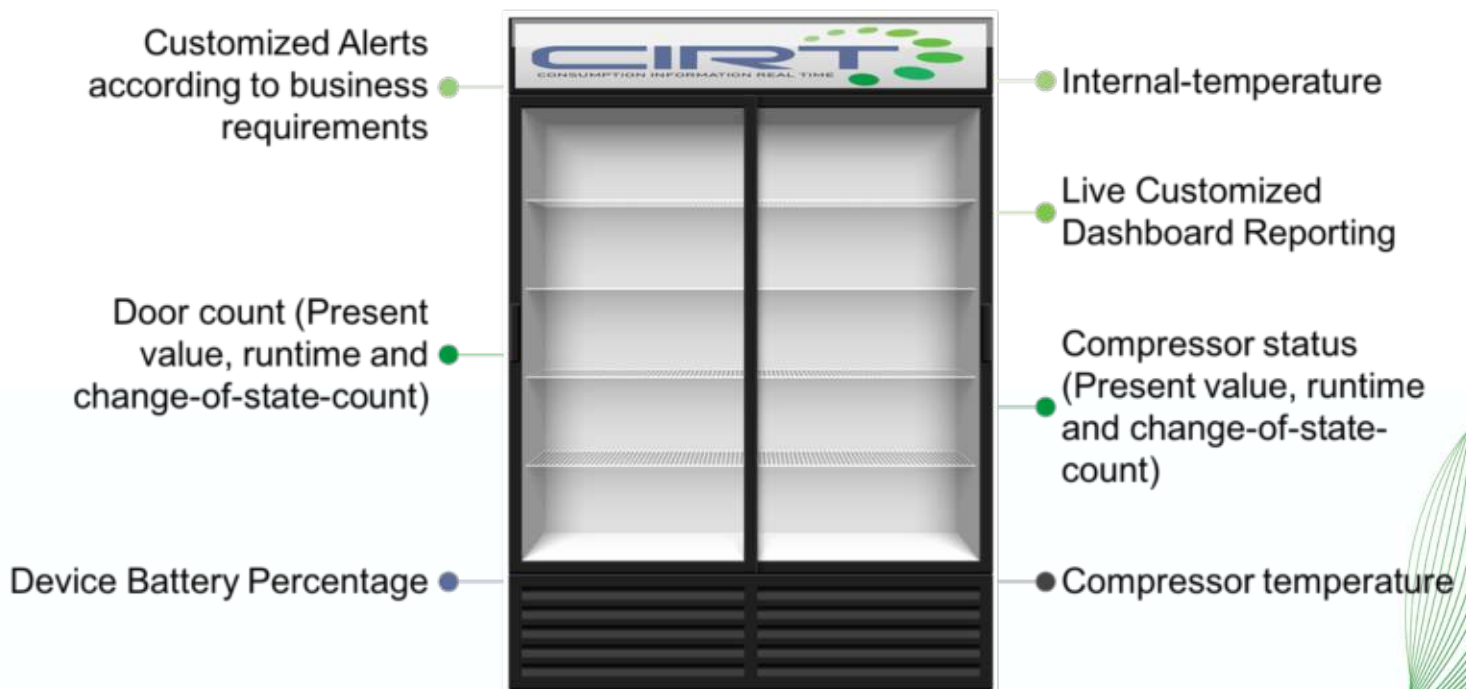
1. Connected state (on or off);
2. Temperature on the inside of the cooler;
3. Condenser temperature;
4. Door count; and
5. Location.

The solution uses innovative locally developed hardware from Digital Twin that is edge enabled. This allows the unit to process tasks in the field and only sending the results over the air.

Combined with U-Blox network that allows for roaming across over 190 countries worldwide and over 600 GSM networks. The Digital Twin CIRT Penguin IoT device will select the strongest network in an area and allows for roaming without any additional cost. These unique features were very well received by ABInBev as it operates across the continent and the world.

The use of advanced Artificial Intelligence combined with deep data and technical maintenance logs allows CIRT to use Microsoft Azure Machine Learning tools to predict and prevent maintenance thus ensuring cold beers being served.

CIRT used Microsoft Azure IoT Central to receive the data from the devices and produced a Microsoft PowerBI dashboard for the client to monitor their data in a user friendly manner.



## Benefits to ABInBev

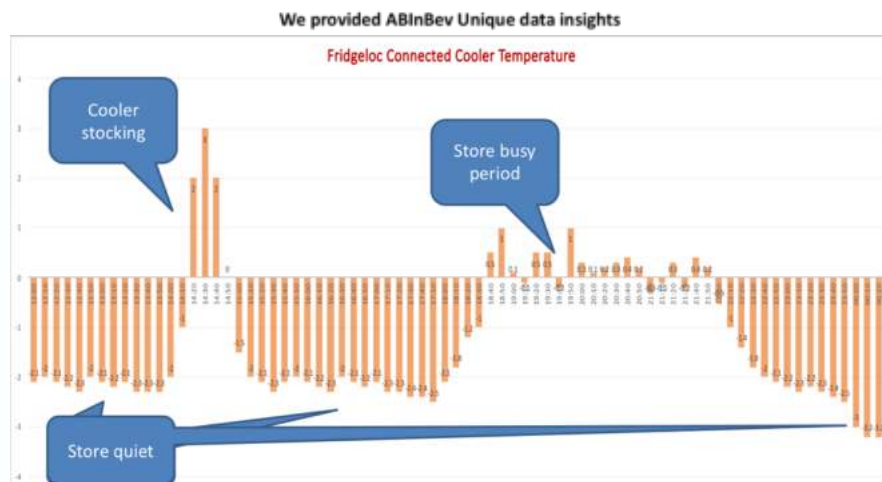
The key benefits to ABInBev's local subsidiary SAB, include lower costs of locating their coolers (online and near real time location), reduced losses due to theft of coolers, monitoring user behaviour in terms of constantly putting the coolers off as well as optimizing their allocation of coolers from manufacturer to point of consumption. From the temperature and thermal dynamics co-efficient we are able to deduce when the unit will require preventative maintenance too. Furthermore, the condenser temperature monitoring probe allows us to do preventative maintenance as well as predictive maintenance on their cooler fleet.

Overall the pilot has provided over 10 million messages and produced over 20GB of data that will be used to effectively manager ABInBev's cooler fleet.

CIRT, and Ajay Lalu in particular, went beyond the call of duty to service us and provided real **valuable insights into the data analytics** in a commercially sensible manner. Their understanding of our business allowed them to provide unique insights from the data

I would recommend CIRT as a technology partner and/or advisor on IoT related initiatives and the Fridgeloc Connected Cooler solution for coolers in particular

Sameer Jooma, former Solutions Africa Director of Innovation & Analytics at AB InBev



WE USE DATA TO SOLVE BUSINESS CHALLENGES IN A VALUE ADDING WAY

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