

# More than Ticking Boxes:

ComplianceMate's  
IoT Platform Creates the  
Future of Food Safety



# Introduction

Food safety compliance is more than a matter of following the law. It can also be a serious matter of health, safety, and consumer confidence for a restaurant's customers. Since 2001, ComplianceMate has been working to make the HACCP compliance process smarter, easier, and more reassuring for restaurants and customers alike. Most restaurants use notebooks and clipboards for compliance checklists. ComplianceMate has been working to change that.

## Business Challenges: Food Safety Made Foolproof

In restaurants all over the world, HACCP-compliance is the standard for reducing risk surrounding food safety. Compliance is critical, but in many cases, the tools are outdated, limited and open to mistakes. Not a single foodservice establishment is untouched by this concern, and the cost of failure is high. Customer illness caused by food and health code violations are unacceptable; even large chains are vulnerable to the damaging fallout of a health scare at one of their locations. ComplianceMate exists to stamp out that threat.

The usual system in food establishments is some combination of signatures, timestamps, and checkboxes, testing at intervals to make sure that thousands of dollars of product are continuously stored and served at safe temperatures. But this system isn't bulletproof. Sometimes regular checks are missed or aren't performed thoroughly and correctly. As a result, oftentimes systems only

provide the basic outlines of an underlying picture. ComplianceMate wanted to bring their customers a comprehensive solution that reduced human error, one that didn't rely solely on periodic time checks but instead provided automated and timely readings on their equipment. ComplianceMate's system would detect problems when they occurred, not on the next hour, and present that data in the cloud for monitoring and real-time action. These minutes make a critical difference.

ComplianceMate also wanted this food safety system to be fully wireless, but industrial kitchens are particularly difficult for RF devices. Enclosed refrigerators, stainless steel surfaces, and lots of RF-scattering equipment is a challenge for wireless sensors. All those walls and metal surfaces make it difficult for most signals to reach their destinations without being deflected or absorbed. However, all the same, wireless was a must-have for ease of integration. The Company has used wireless solutions but has found that there was a need for a significant improvement in reliability to overcome the obstacles caused by kitchen design and technical limitations.

Designing a complete IoT platform is an intense, multidisciplinary project and ComplianceMate saw a great benefit in reaching out to a partner for a third-party solution. ComplianceMate understood their customers and their challenges, and the enhanced value that improved back-of-house automation could bring to these busy environments. They had the insight to search for, identify, and leverage a partner's innovative hardware to solve their customers' unique problems.



# Solution: IoT Gateways And Wireless Sensors

ComplianceMate explored Laird Connectivity's Sentiur™ Series wireless sensors and gateways as the platform for their smart monitoring solution. Working closely with Laird, they were able to adapt the RS1xx temperature and humidity sensor as the perfect device to deliver real-time readings, powered by LoRaWAN technology. The RS1xx temperature sensor is able to take advantage of LoRaWAN protocols and connections to send overcome the difficult environments that exist in foodservice establishments. It is an important link that was impossible with other wireless protocols. This ease of connectivity allowed more consistent readings enabling a constant up-to-date picture of the kitchen's status. The RG1xx Gateway was the natural complement



the start. They needed to customize the RS1xx for wide-scale deployments with specialized features that would provide additional value to their customers and would work seamlessly with their software applications.

The product needed to represent ComplianceMate's brand unmistakably. They leveraged Laird Connectivity's design services team to create an enclosure with their distinct brand colors and logo. The result was an enclosure that immediately evoked

ComplianceMate's signature style. Lastly, all this data needed to be successfully deployed to the cloud in order to be utilized by ComplianceMate's state of the art dashboard. Their dashboard was designed to give administrators incredible access to timely data as

well as including specialized features to enhance a customer's food safety profile and also alert them to problems before they become costly. All of that hinged on gathering that data and storing it reliably and accessibly in the cloud. ComplianceMate found the solution in working with Laird to select and develop the backend needed to absorb millions of measurements on a continuous basis. This was the necessary foundation to help ComplianceMate's customers get the most out of their data.

## Results: An Unrivaled IoT Platform

ComplianceMate's complete range of wireless sensor equipment differentiates itself incredibly in the market. Wireless, long-life battery-powered, long-range, and easy to install, their temperature sensors and gateways bring unrivaled monitoring to difficult environments. They collect data on coolers, freezers, hot foot holding stations, and more with 24/7/365 reliability and their custom cloud application translates this intelligence into meaningful actions.

Across their IoT platform, they've already collected over a billion individual data points, triggered nearly a million emergency alerts, and proposed over 30 million action items for ComplianceMate customers. Phone, email, and text alerts have proven their value many times over, preventing costly and dangerous spoilage in kitchens around the world.

A far leap from checklists and clipboards, the ComplianceMate solution erases the weaknesses, the blind spots, and the uncertainties from food safety, to the benefit of food service providers and customers alike. The full collection of ComplianceMate offerings replace guesswork with accountability, providing incredible value for their customers.

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to the RS1xx, providing a ready-made collection point to gather LoRaWAN sensor information and transmit it to the cloud. ComplianceMate developed a solution for each step in the data journey that empowered their vision.

This complete ecosystem was a game-changer for ComplianceMate, perfectly suited to their application. The Sentiur™ Series enabled them to leapfrog existing technology and take advantage of the burgeoning world of IoT. However, the fit wasn't perfect at