

Life Pharmacy Group

Case Study

IoT Cold Chain Management Solution

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IoT Cold Chain Management

Pharmacy Guild's 2022 Pharmacy of the year winners Cooleman Court Pharmacy, a division of Life Pharmacy Group, are continually reviewing ways to improve their service and ensure the safety, efficacy and quality of products they supply their customers.

The Brief

Stored Temperature-sensitive pharmaceutical products and vaccines rely on strict temperature controls across refrigeration assets.

Their current temperature monitoring system has devices installed within the refrigeration units, which communicate over Wi-Fi to a gateway that passes the data onto a cloud-based platform.

Due to the gateway requiring power, as well as the internet connection, the system was subject to fail in the event of a power outage, losing critical temperature data over the outage period. Due to the loss of communications and data, the solution did not provide alerts and alarms if product temperatures were breached within the refrigeration units.

The Challenge

Due to the gateway requiring power, as well as the internet connection, the system was subject to fail in the event of a power outage, losing critical temperature data over the outage period. Due to the loss of communications and data, the solution did not provide alerts and alarms if product temperatures were breached within the refrigeration units.

Strive for 5 guidelines requires pharmacies to measure their product temperatures a minimum twice daily. This strategy works well during trading hours, but what happens when the pharmacy is closed? If the data is unrecoverable due to an outage, and the pharmacy cannot prove that a product temperature breach didn't occur during the evening, the pharmacy has no option but to discard the product, which could lead to a hefty insurance claim or significant financial loss.



Our Solution

Through our relationship with the Gold Cross, we were given the opportunity to provide a proof of concept (POC) project with Life Pharmacy team, to demonstrate the effectiveness of our IoT Cold Chain Management Solution.

The CT IoT Cold Chain Management Solution is a cloud-based software platform that pairs with our latest onboard (rechargeable) battery-powered Gen3 IoT device, to comprehensively monitor product temperatures, ensuring product safety, as well as providing operational and equipment insights.

Understanding the requisite accuracy required to monitor highly sensitive pharmaceutical and vaccine products, all of our devices are calibrated to NATA standards before shipment.

Device Calibration services are also supported by Over-The-Air (OTA) calibration updates.



The Gen3 IoT device is stand alone, simple to install (no cables), and is designed to connect directly to widely available (NB-IoT/CatM1) cellular networks, providing consistent connectivity. We partner with Telstra, Optus and Vodafone to provide the best connectivity and lowest cost IoT data services for our customers. This method of connectivity does not rely on the local intermittent Wi-Fi signal or internet access.



Simply turn on our device.
Place it near the product
you would like to monitor.



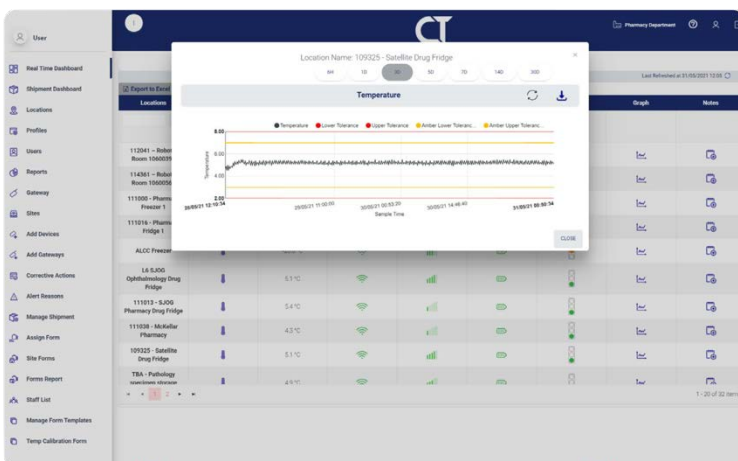
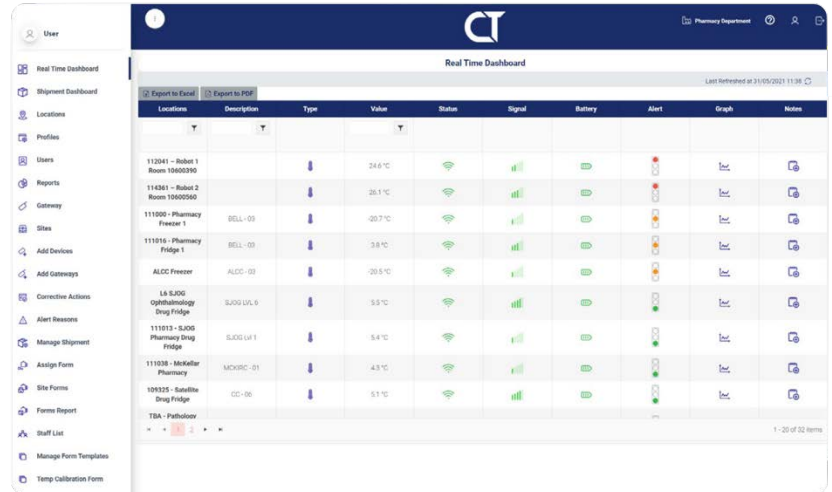
The device instantly
starts transmitting the
temperature data to the
cold chain management
cloud solution.



The cloud solution
provides accurate
temperature reporting,
with customisable alerts
and alarms to ensure
product safety.

Data is continually stored within the device to assure no loss of data in the event of a Telecom network outage. Every 15 minutes the devices connect to the network and send the latest data to our cloud-based platform for storage, visualisation and reporting.

Our CT Cloud-based platform and free mobile application are highly comprehensive and simple to use. From the main dashboard, users can easily see the temperature status of their products and assets, via a simple traffic light system.



Users can drill down into assets for a more detailed view, providing temperature charts, alerts, alarms and corrective actions.

Alerts and alarms can be customised to meet the needs of your store, and do not suffer from unwanted false alerts due to sudden temperature shocks when loading and unloading the refrigerator.

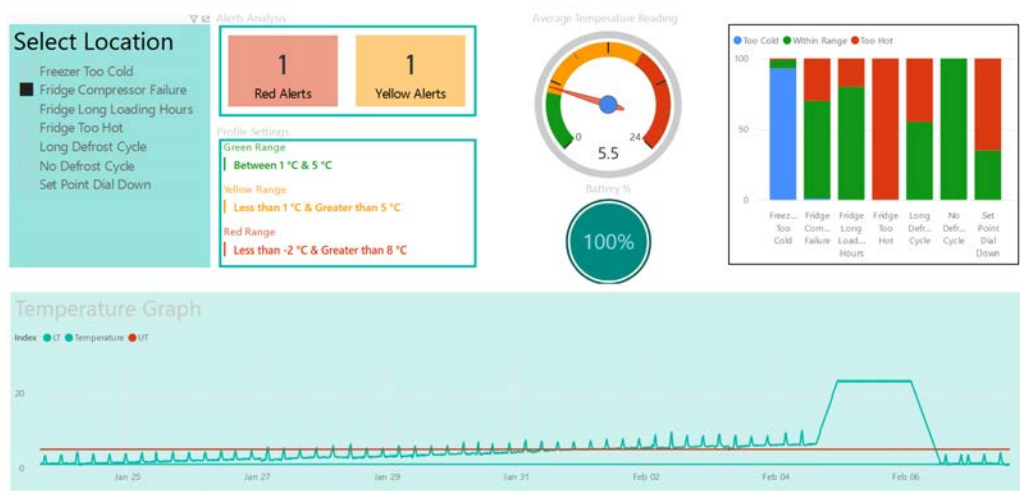
The Cold Chain Management solution is always monitoring regardless of store power, and will provide proactive alerts and alarms, giving customers time to take corrective actions and minimize stock loss inside and outside of business hours.

Inbuilt, Strive for 5 alerts provide a notification for users to login, validate and acknowledge temperatures are within the acceptable range. All records are stored within the platform and can be downloaded anytime in a report, to meet compliance purposes.



Beyond comprehensive temperature monitoring, CT customers benefit from our in-built software analytics. Our Cold Chain Management solution not only watches over your product temperatures, but also keeps an eye on your refrigeration assets, and provides operational insights. These include things such as door openings and temperature setpoint deviations.

CT's proprietary algorithms build an understanding of your refrigeration equipment and can identify and alert to anomalies, such as equipment failures and defrost changes, before they occur.



With customers continually striving for business improvements, the Cold Chain Management solution offers the ability to create unlimited digital forms, allowing customers to move away from paper-based forms and digitize their operations.

Conclusion

Since installing the solution at Coleman Court Pharmacy, there has been an increased feeling of security over stored refrigerated pharmaceutical products, knowing that the solution is watching over these valuable assets. The ability to digitize strive for 5 compliance requirements makes reporting easier, and any alerts are captured providing the team time to take corrective actions and mitigate losses.





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