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MERIAN ISELIN
Klinik für Orthopädie und Chirurgie

Medical Clinic Uses IoT Solution to Automate Constant Temperature Monitoring of Pharmaceutical Products

Advances in Internet of Things technologies have opened up a world of possibilities in medicine, potentially having a profound impact on the efficiency and quality of patient care. Modern medical facilities can utilize sensors, smart devices, and software for a wide range of applications, including remote health monitoring, equipment tracking, and drug management. One of the most compelling use cases of IoT technology currently deployed in medical facilities is in the monitoring of pharmaceutical storage areas to control temperature.

Challenge

Proper storage plays a vital role in safeguarding the integrity of pharmaceutical products. Many drugs, medicine, and other pharmaceuticals are susceptible to temperature and humidity levels, and as such, have stringent storage requirements. Improper storage can result in medications losing their efficacy or becoming harmful to patients. To avoid deterioration in pharmaceutical product quality, clinic operators must consistently and accurately measure, monitor, and track real-time conditions in pharmaceutical storage cabinets.

Controlling these conditions presents a significant challenge for medical facilities, as manually checking temperature and humidity is inefficient and labour-intensive, also carrying the risk of human error in measurement accuracy and reporting. Internet of Things technologies are enabling medical practitioners to automate temperature monitoring of pharmaceutical storage cabinets. As one of the most renowned private medical clinics in Switzerland, the Merian Iselin Clinic sought a reliable

and effective method of remotely monitoring and maintaining ideal temperature and humidity conditions within its pharmaceutical storage cabinets.

Solution

The Merian Iselin Clinic chose Switzercloud's end-to-end IoT solution to help ensure the quality and safety of its pharmaceutical products. The Switzercloud IoT platform is enabling the Merian Iselin Clinic to continuously monitor the conditions of pharmaceutical storage areas using IoT sensors. These sensors regularly measure temperature and humidity values in near real-time and send these readings to the Switzercloud IoT platform via LoRaWAN®. From there, the clinic can view the captured data through an intuitive dashboard interface. The Switzercloud's inbuilt alerting system allows technical teams to respond immediately if temperature or humidity thresholds are exceeded. **Thanks to the ease of use for end-users, data can be viewed and shared by multiple Clinic stakeholders to ensure operations are kept at optimal levels.**

TEKTELIC is proud to provide the LoRaWAN® connectivity needed for this innovative solution. LoRaWAN® is the ideal technology to provide scalable, long-range, low power, and secure bi-directional communication with deep indoor penetration.

Results

- Automates required reporting by Clinic staff to ensure correct environmental storage conditions
- Safeguards quality and correct tolerance adherence of medications, whilst minimizing incidences of waste
- Greater granularity visibility of temperature and humidity recording, eliminates inefficiencies with manual monitoring
- Storage condition information can be accessed, shared and controlled across departments more effectively

To learn more about all of the IoT **solutions offered by SwitzerCloud**, please visit
https://switzer.cloud/

To learn more about **TEKTELIC's complete End-to-End IoT solutions**, please visit
http://www.tektelic.com or contact info@tektelic.com