IoT use cases for smart building

IoT is changing the way facility management, security and construction companies are operating
Real-time tracking and cloud-based data sets enable construction companies to reduce theft, increase productivity and control operating costs. Theft of machinery and valuable equipment such as electrical panels from buildings is very costly. Protecting your equipment has a deterrent effect on potential thieves, and if a robbery should occur, tracking information will be key in enabling police to recover stolen assets and gather evidence for prosecution. Tracking heavy equipment also provides valuable insight to help managers monitor oversights and assess usage trends.

Traditional alarms and CCTV systems are costly to install on construction sites and time-consuming to configure. This makes them unfeasible for many job sites, especially short-term projects, sites with multiple buildings and locations where no power is available. Connected to the Sigfox IoT global network, the next generation of wireless alarms using presence detection sensors are the perfect solution for early-stage projects and unpowered sections of construction sites. These alarm units operate entirely on battery power and can be located anywhere on the site.

IoT offers a solution for protecting expensive assets on construction sites. Switching to connected electrical panels for tracking ultimately prevents them from being stolen or damaged. When motion is detected, the panel triggers an alert via the Sigfox global IoT network to the electrical contractor. Detection of motion also triggers the GPS tracker, as location details are a key piece of information for the police to recover assets and help dismantle black market networks.
Fire safety equipment maintenance is time-consuming and many man hours are wasted carrying out unnecessary checks. Alerts triggered by traditional smoke detectors may not be heard by enough people or completely ignored. Smoke detectors connected to the Sigfox network can send real-time alerts, keep-alive status and battery level. Security companies can respond quicker to alerts, improve safety, retain clients, win new contracts and better manage their operations.

Smoke and fire alerts sent via the Internet

Back-up alarm systems

Security companies must provide reliable, consistent protection. Powered by Sigfox’s global IoT network, smart security solutions outsmart GSM jammers, hold security guards accountable and increase alarm system reliability. Rather than competing with traditional systems, these smart devices complement existing platforms and provide a cost-effective, scalable way for security providers to increase the effectiveness of their existing services.
Low cost, autonomous and wireless, Sigfox-Ready sensors can be installed quickly and easily all over the building to monitor systems such as HVAC, boilers, light, power, fire, and security. They also allow you to monitor and control operational parameters like temperature, occupancy, indoor air quality and humidity and door openings. Heavy machinery such as lifts and escalators can also be fitted with sensors to anticipate breakdowns and trigger quick remedial action when a fault is detected. Even water leaks and legionella can be detected with IoT sensors. These sensors run on the same battery for years, eliminating the hassle of manual maintenance and control.

Building automation system infrastructure is simpler and cheaper than ever

Put an end to time and money spent on manual on-site meter readings and data processing. Once activated, meters can transmit data immediately via the Sigfox public network, with no pairing or configuration required and without having to replace the battery for years. You can now monitor and optimize your infrastructure in real time to detect leaks, automate billing and remotely activate and deactivate services.

Collect consumption data effortlessly
Insights into the integrity of building infrastructure

Detect damage to building structure by measuring cracks, extensions or strain gauges on key structural elements. Constant monitoring can prevent extensive building damage by helping engineers better predict and plan building improvements.

Ensuring defibrillators are ready for use

Defibrillators are now commonly available in public buildings and workplaces. They must be in perfect working order 100% of the time so they can save lives. Precious data is sent through the Sigfox global network to ensure they are functioning correctly, including results of daily tests, battery tests, door openings, and operating status.

Avoid rodent infestations

Rodents transmit dozens of diseases and are also the main cause of electrical fires. Customer satisfaction, reputation, competitive positioning and business liability are at stake. Rodents are partially blind, they move by touching and smelling everything around them, so traps alone are ineffective since foraging rodents learn to avoid new objects. Thanks to IoT, rodent activity monitoring solutions based on infrared sensors can identify rodent activity hotspots in the building, and rodent management programs can use this data to trap up to 6 times more rats.
Let the trash talk

Don’t waste time calling the refuse collection service; the fill level of the dumpster is sent automatically to the cloud to trigger a refuse collection request. A simple temperature sensor and fire alarm can also be added and triggered as appropriate. This offers convenience and safety, and cuts down on collection requests.

What if your desk could talk?

New trends like flex office, home office and co-working are impacting on workspace management. Smart desk monitoring solutions based on infrared technology and temperature sensors are the ideal solution for mapping and monitoring occupancy rates for your office space (desks and meeting rooms) and facilitating the move to these new ways of working. Occupancy rates will increase and real estate costs optimized as available space can be sold, rented or repurposed.

Just press the button to call for service

Simple button devices connected to the Sigfox IoT global network enable facilities managers to reduce costs, predict client needs and delight customers with exceptional service. When stock needs refilling or facilities need maintenance, clients simply press the button. The alert is sent via the Sigfox network to the facility manager’s dashboard, who schedules the work. Over time, data can be used to predict future alerts. Prompt compliance keeps the client happy and raises the value of having a facility manager for the business.
Monitor employee attendance remotely

Time clocks connected to the Internet through the Sigfox global IoT network allow you to monitor the attendance of your workers on remote job sites. Forget the hassle of SIM cards for tracking employee comings and goings with constant and real-time connected monitoring.

Monitoring customer satisfaction

Customer feedback is essential to improve services and achieve higher levels of satisfaction. It’s even better when you can get the feedback live.

In any area where customer feedback is important, just place a small, customizable connected dashboard or button to collect customer feedback effortlessly. Use a simple color code to trigger instant responses from customers as they leave the areas under your management. The data is then available in the cloud for visualization and results interpretation. Alerts based on specific thresholds or results can also be triggered for faster customer response.
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