IoTSense

Smart , Scalable and Secure IoT platform

Connecting Buildings *and* Gated Communities

Introduction

IIn the age of the digitized human, with smart devices and wearables tracking our every move, we have become used to the idea of data points monitoring. It is imminent that these smart concepts have penetrated its presence in various industries and sectors including construction. A smart building is any structure that uses automated processes to automatically control the building's operations including heating, ventilation, air conditioning, lighting, security and other systems. A smart building uses sensors, actuators and microchips, to collect data and manage it according to a business functions and services.

> This case study showcases Winjit's capabilities in leveraging technology to seek a solution to integrate buildings and simplify how building systems analyse data to uncover value and greater performance.

Customer

Our client is a famous brand, known for building automated residential solutions. The client had procured a profound experience with the provision of HVAC, Security, and Sustainable Living Solutions. The client owns an extensive network of highly qualified property managers and facility managers. They aim for integrated automation solutions for building controls; They wanted to consider smart applications of IoT-based solutions with business partners.

Requirement

The client was seeking a budget friendly solution to integrate buildings which would increase the efficiency of day to day monitoring and enable the residents to understand and use the property smartly.

Challenges

Some of the challenges faced while connecting the building were:

- Privacy protection of people
- Data collection with security
- Compatible with both smaller and large buildings
- Stationing of real-time data outcomes
- Utilization of open protocol with standard HMI
- Economical Cost with reduced carbon foot prints

Solution

Unlike traditional business sectors, the client is focused on Cardinal consumer needs. For months, teams from client and Winjit cooperated to take following steps:

- Conducting a detailed brainstorming sessions to get In-depth understanding of working pattern of current systems
- User experience in the shape of comprehensive charts
- Finalizing the applications, sensors, and data generation points for smart buildings
- Use of IoT gateway to collect sensor data along with translation between sensor protocols
- We provided the competitive edge in the shape of Winjit's IoT Sense.
- To connect various set of smart building systems that includes HVAC units, Smart Thermostats, lighting, electrical systems, sensors, security & safety equipment and actuators embedded in the building; the entire infrastructure had to deal with external inputs. These inputs were smart grid and weather monitoring tools.

Benefits

This solution could gather information from all sensors, filters them and forward only critical alerts. The filtered data was moved to the cloud to take further action. A key feature was control over devices. With our solution, the users could control devices with real time outputs. The user could turn on/off HVAC, lights, networks and other connected devices.

Achievements

The solution is available in following pre-decided data points:

- Power Consumption: Kilowatt (kW) per square/tenant/, lower peak, resource efficiency and core demands.
- Building Lifecycle Data: Sanitation standards, lighting level, temperature measurements
- Indoor Environment Quality: CO2 consumption level, ventilation conditions, abnormal temperature measurements and noise level.
- Security and Safety Information: Failure of equipment, security status, integrated cameras, accessible control for monitoring
- Health data of building and its infrastructure

Conclusion

This infrastructure helps owners, operators and facility managers improve asset reliability and performance, which reduces energy use, optimizes how space is used and minimizes the environmental impact of buildings.

IoTSense is a smart, secure and scalable software gateway platform which enables businesses to move from traditional technology implementation to smarter, real time and advanced technological transformation. It is best example of how legacy devices and existing eco-system can be transformed into smarter businesses.

IoTSense is powered by Winjit Technologies which is an award-winning technology company for providing IT product and solutions globally.

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