



Case Study Hospitality

Background:

A 5 Star Premium Hotel with 200 rooms, part of a large chain of luxury hotels, was facing high energy bills and inconsistent room temperatures, leading to guest complaints.



Solution:

After evaluating BMS and IoT solutions, management decided to adopt solution from AgileConnects for being open architected, scalable, and ability to command and control indoor units as well as chiller reset strategy.

- In-Premise AgileWise Gateway with AI, ML and edge computing
- Use of existing WIFI at the hotel
- AgileAHU Controllers provided with thermostat connect to existing Actuator Valves, VFDs which has RS485. AgileWorks for monitoring & Controls of chilled water valve and temperature
- Dynamic Agile SmartSchedules implemented for comfort & energy optimisation
- AgileSensors to monitor floor temperature & humidity
- Energy Meters/ per outlet to track different heads of energy consumption
- Centralized dashboard and mobile app for equipment malfunction and alerts
- Each of these zones has unique requirements and operating hours. Also different set points based on room occupancy, Banquet On Demand operations
- Hotel management also wanted to deploy certain business rules to prevent excessive and aggressive setpoints
- Demand control ventilation for Corridor based on CO2 sampling
- Real-time energy usage monitoring and analytics to identify areas of improvement.



Results and benefits:

- Energy Saving in chiller, AHUs, FCUs, Split ACs approx. 10% per month with the help of Agile smart schedules.
- Visibility into temperature, humidity & CO2 level in different zones in the hotel areas like guest floor, banquette, restaurant, bar etc.
- Predictive/Prescriptive alerts resulting into lesser breakdowns
- Meaningful analytics:
- Daily & monthly reports of consumption, performance & malfunction
- Zone and ambient temperature tracking and temperature breach thresholds alarms/alerts to facility team
- Energy patters of different equipment types with respect to energy, power factor and voltage/current fluctuations
- Equipment Run hours tracking
- Scheduling & Automation of all:
 - Air Handling Units
 - Fan Coil Units (For Guest Rooms)
 - Treated Fresh Air Units
 - Fresh Air and Exhaust Air Fans
- Web portal and mobile application for control
- Data-driven decision making for energy management and equipment maintenance



Additional Benefits:

- Personalized guest experiences through automated room temperature adjustments
- Enhanced sustainability and energy efficiency reputation
- Compliance with energy efficiency regulations and standards
- Real-time monitoring and response to HVAC issues, reducing downtime and improving guest satisfaction



This case study demonstrates the potential of AgileWorks in hospitality to drive energy efficiency, cost savings, and improved guest satisfaction, while also enhancing the overall guest experience and sustainability reputation.