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Leading Indian Retail Conglomerate Optimizes Energy Consumption with Acuvate's Advanced IoT Solution

About the Client

The client is one of India's leading retail companies, engaged in the business of a range of household and consumer products under multiple retail formats. The company operates popular supermarket chains and lifestyle stores across the country, and has a strong presence in integrated foods and FMCG manufacturing sectors. By successfully and innovatively connecting buyers, sellers and businesses across the country, it has brought about a rapid retail transformation in India.

Business Challenges

As the client operates various retail outlets across leading malls, large volume of energy in the form of electricity and water is utilized on a daily basis. Keeping in view its commitment to sustainability, the company had been actively looking for a solution to optimize the usage of these resources. The key challenges for them are listed as below

High energy and utilities bill

With high volume of energy being consumed each day and in the absence of appropriate measures to optimize the usage, the mounting expenses towards energy consumption as well as utilities became a key cause of concern for the company.

Utilities management

Typically, the shopping trolleys used in the company's retail outlets are sourced from third-party vendors. Management of these trolleys was another key challenge, as they would often get misplaced due to high footfall in the store and customers parking the trolleys at different unknown places.

Absence of real-time analytics

As all the data was manually gathered and keyed in, there was no defined way to validate it. Chances of data inaccuracy were high, and insights could not be gathered to optimally manage the energy consumption.

Impact on the environment

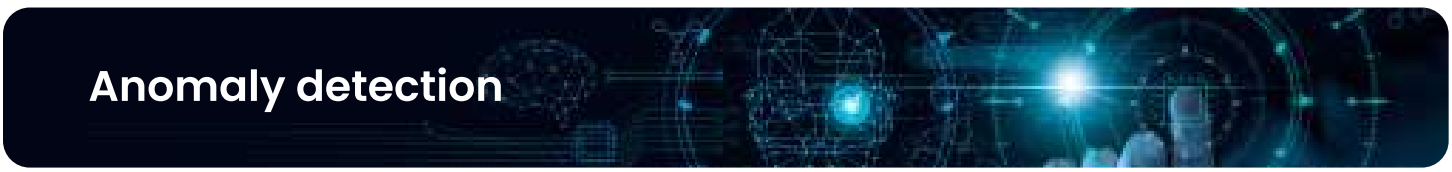
By minimizing the usage of the resources, the company actively wanted to contribute to the well-being of the environment.

Solution

Acuvate deployed a smart IoT-based energy management solution for the company, which enabled smart facilities management for them by effectively controlling the usage of resources

Different sensors such as flow meters, level sensors, leakage detection sensors, etc were installed at different sources and locations. To track water consumption, energy meters were deployed at the water source. Use of smart meters helped in the analysis of resource usage, from the quantity as well as quality perspective. Quality analysis, in particular, has been quite useful in detecting the quality of water. This is done by using sensors that measure the turbidity, chlorine content, etc in the water. All these sensors provide real-time data on the usage of resources, thereby promising greater data accuracy.

The company earlier used to rely on mechanical methods to check on the usage of resources. Acuvate helped them deploy new-age proximity-based sensors, which allow for two-way communication. As soon as these sensors provide inputs or detects any unusual pattern, immediate corrective actions can be taken. For example, in case a leakage is detected, the facilities manager could close the source remotely or move it to a different distribution source. Proximity sensors also monitor assets like pumps, taps, valves, bolts, circuits, etc. in real-time, which greatly help in minimizing energy consumption. Also, since these sensors do not require any maintenance, they are relatively easier to use.



The solution tracks the energy usage pattern on a day-to-day basis. For example, less footfall in the retail outlet on certain days would mean less energy usage. These insights are then further used to efficiently manage demand and supply internally. Further, advanced algorithms help detect changes in the usage pattern. In case of stark changes, the solution instantly alerts the facilities manager, who could then take immediate actions to minimize the usage.

Data Assimilation and Analytics

The IoT solution assimilates all the key, important data sets on a single platform. The next-gen analytics tool showers real-time insights on the day-to-day energy consumption pattern. For example, in case of water usage, it would provide real-time data on different sources of water consumption – cold chains, water fountains, restrooms, etc. This data is then automatically analysed to reveal important insights and patterns, helping the company in decision making.

Results

The company has successfully been able to overcome all the above-mentioned challenges and derive a host of positive outcomes, which are listed as below

Cost Saving

The implementation of the IoT solution has led to a significant, direct cost reduction for the company. The utilities bill has been reduced by 18-20%, which is a tremendous cost-saving for them

Sustainability

The use of the solution has helped the client become more environmentally sustainable.

Effective utilities management

The whereabouts of trolleys are now smartly tracked, improving their management.

Partnering with Acuvate for enhanced operational efficiency

Acuvate is a global software service provider with over 15 years of experience in offering a wide range of next-generation digital and consulting services. All of the company's business offerings are aimed at modernizing, automating and supporting enterprise applications, IT systems, and infrastructure. Acuvate truly believes in innovation and makes use of new-age technologies such as AI, ML, Advanced Analytics, IOT, Intranets, IT Migration & Modernization, to rapidly transform businesses across the globe.

Acuvate is a Microsoft Gold certified partner, having successfully transformed 200+ reputed enterprises globally, including various Fortune 500 companies.