COMPANY PROFILE

RAGNO ELECTRONICS

Ragno Electronics Pvt. Ltd

Electronic City Bengaluru-560100

About Us

Ragno Electronics is an IoT based Smart Automation company working on a niche cutting edge and disruptive technology, which is significantly cheaper than GSM, unbelievably long range and energy efficient compared to Wi-Fi and Bluetooth. We automated warehouses, shopping malls, residential villas, etc., using our Ragno Network. We helped our clients in reducing up to 30% of energy usage with our Energy Management Solution which includes smart energy meters and smart appliance controllers.

We are doing our part to save Nature Earth by helping the industries, which are the alpha sources of pollution and natural resource depletion, to manage their resources with reliability.

In contempt of saving natural resources, also they can transform their business with the automated acquisition and analysis of reliable sensor data, which is impossible to collect otherwise.

We are striving to ramp up the scalability of our vision to smart cities and smart nations.

Overview

The maximum energy consumption in any ware house comes from lighting and air conditioning. But most of times we see air conditioners and lights being on irrespective of the presence of the customers in the store zones. The temperature of the air conditioners are set irrespective of the weather condition outside, which leads unnecessary consumption in Energy bills. Customer experience is key in any business, a viable solution should be to maintain the customer experience and also to reduce utility bills for Warehouse.

While other crucial problem is managing and monitoring large number of stores in various parts of country.

Gamification

Gamification for energy consumption tries to reach it by involving store managers and employees in a game-oriented way. Through cooperation and competition, the application motivates different store managers and employees in order to achieve the energy efficiency goals

Our end to end Solutions

- Smart Lighting Technology helps in monitoring and controlling the ambience lighting intensity remotely without effecting customer experience.

- Motion activated lights with sensors optimizes the use of energy by the lighting system depending upon the occupancy in the store.

- Smart Air Conditioning system, by measuring occupancy levels and external weather we calculate the comfort set points and the program is updated to the air conditioners without human intervention.

- Remote Energy monitoring and device management of all the stores across country on a single platform.

Hardware

Smart Lighting:

Existing Current Led Lighting infrastructure will be **retrofitted** with our **smart Light controller**, which can control the status and intensity of the light. Microwave based **Motion sensors** are installed in different store zones to track the occupancy of the zone. These controllers are connected to our **gateway**, and intelligently decides the intensity and the status of different zones based on the location of customers.

Smart Air Conditioning:

Our **Smart AC/HVAC control** is fitted to the present infrastructure. The control unit communicates with the gateway. The gateway intelligently commands AC/HVAC control unit based on the feedback obtained from the different sensors.

Remote Energy Monitoring:

Installation of **smart energy meters** at various places in a store will allow monitoring of energy consumption at various places. These energy meters are connected to the gateway

Software Application

- A web and mobile platform, where every device can be monitored remotely.
- Platform for monitoring energy consumption of different stores at various locations.

- Platform helps you in visualising heat map of the stores for the entire day, which will later be useful for marketing purposes.

OUR PRODUCTS

RAUTO-2A4:

This is a LoRaWAN based Device controller, this can control four appliances of 2A rating each. It is also equipped with a NONC input to report the status of the switch when operated manually. This can connect to any private or public LoRaWAN services and is designed for smart buildings.
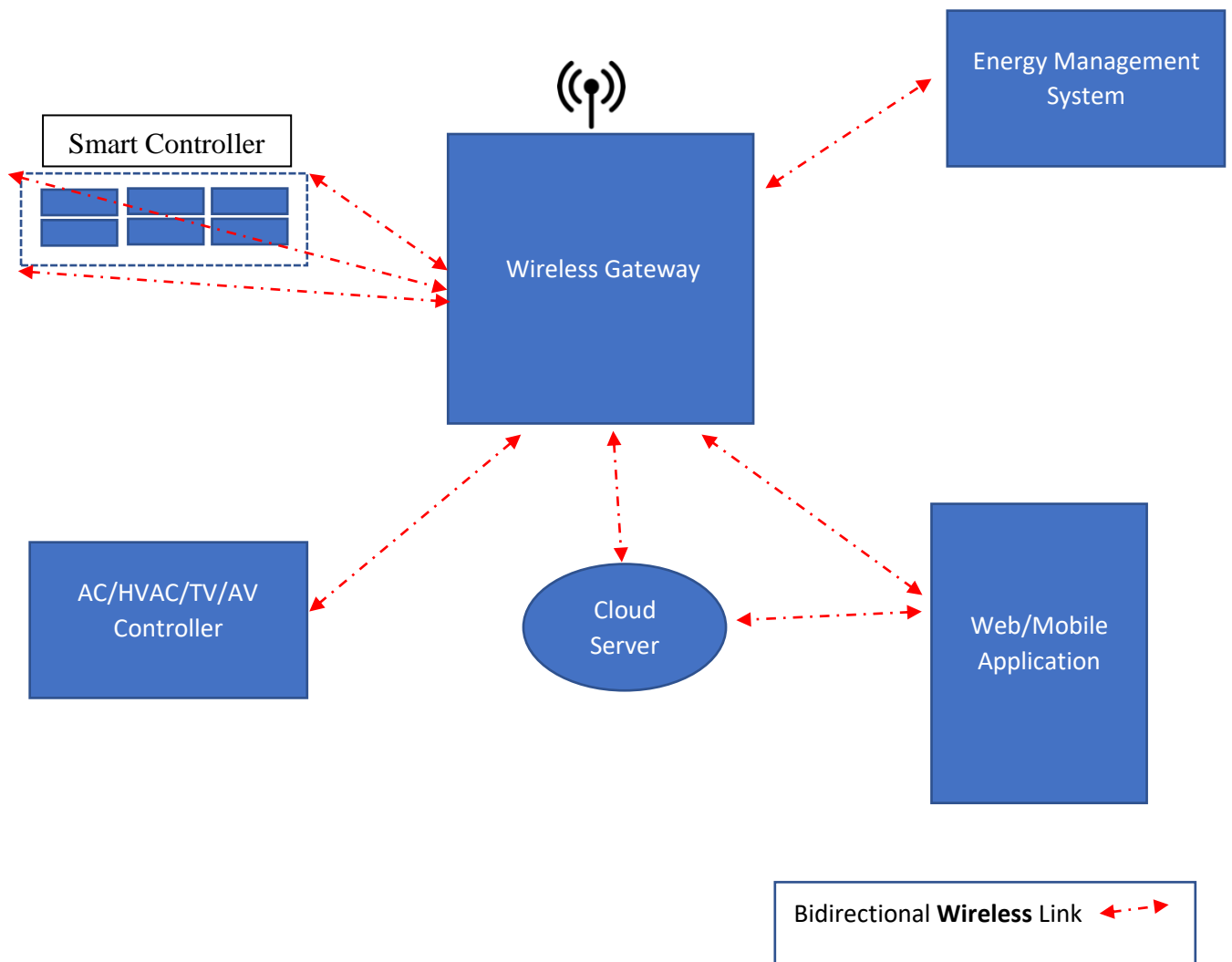
RAUTO-30A1:

This is a LoRaWAN based Device controller, this can control one appliance of 30A rating each. It is also equipped with a NONC input to report the status of the switch when operated manually. This can connect to any private or public LoRaWAN services and is designed for smart building and smart cities.

R-RS485 DATA LOGGER:

RAGNO's RS485 Data logger is capable to collect data from any RS485 ports. This can connect to any private or public LoRaWAN services and is designed for smart building, cities and Industries.

BLOCK DIAGRAM

Diagram labels

Smart Controller

Wireless Gateway

Energy Management System

AC/HVAC/TV/AV Controller

Cloud Server

Web/Mobile Application

Bidirectional **Wireless** Link ◄-·-►

*Existing LED lighting infrastructure should be compatible for dimming.

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