INDOOR AIR QUALITY

24x7 monitoring out of the box

Cosmos™ healthy home system

For more than 100 years Panasonic has been known as a technology company that brings to life ideas that focus on the well-being of its clients.

For *Panasonic Life Solutions of America* division, IAQ is a key priority and they wanted to offer a solution that meets the latest codes and standards of a healthy system so they can ensure users breathe clean air and prevent issues associated with respiratory conditions and many other illnesses.

They needed to come up with a robust technology that could help them connect their ventilation fans to be controlled remotely, and guarantee 24x7 monitoring and remote control through a simple App. They reached out to Webee to provide the expertise and technology they need to take their first steps into the market.
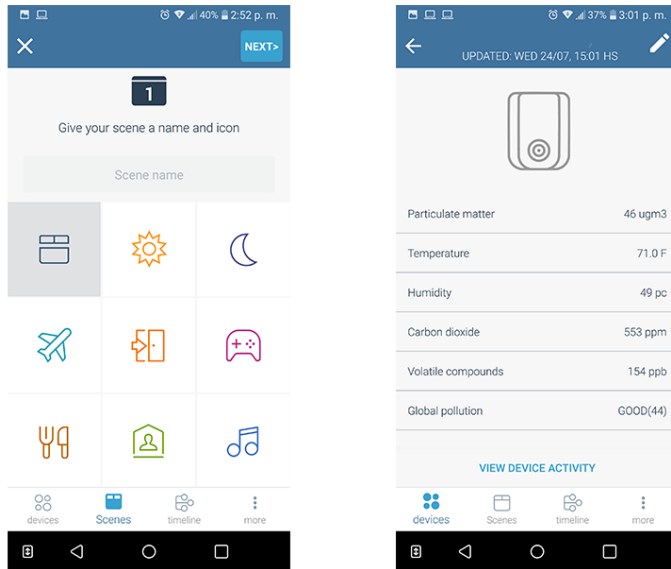
MONITOR AIR QUALITY IN REAL-TIME

RECEIVE IAQ ALERTS WHEN CONDITIONS ARE OUT OF RANGE

CONTROL REMOTELY THROUGH A MOBILE APP

INTEGRATE WITH THIRD PARTY DEVICES, PROTOCOLS AND COMPLIANT WITH ASHRAE

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Why Webee?

Our services gave Panasonic Life Solutions the speed they needed to get to the market on time with a flexible solution that guarantees they meet the market needs. The solution can also be expanded to add more variables to sense and different communication protocols. The data collected also gives them the possibility to generate AI algorithms modules and send users recommendations to optimize their daily lives.

Our Technology Approach

Webee technology helped get the solution just in time for the commercial launch. Our goal was to make the necessary adjustments to make sure they could reach the market with an IAQ monitoring system in compliance with ASHRAE 62.2 regulations. They needed an intelligent solution with the autonomy for full-time monitoring to correct any deviations effectively.
We provided a combination of solutions that included: Central Hub Control - multi-protocol and able to integrate with third-party sensors, IAQ Sensor Integration, ventilation system retrofit compliant with ASHRAE 62.2, Android and iOS mobile applications and cloud architecture.
The system also has the capacity to work locally without internet connectivity.

Panasonic.

HOW WE BUILT THE TECHNOLOGY

Smart Hub: The heart of the system created with multiple communication protocols, ZigBee, Z-Wave, WiFi that facilitate the integration and interaction with multiple devices in the market.

IAQ Sensor: We integrated the sensor that works with the hub to monitor indoor air quality and execute different scenes using Panasonic Air fans also retrofitted with our technology

Smart Apps: The solution includes two smart apps for Android and iOS that offer the possibility to configure and control the central ventilation system and air quality with a vast device ecosystem that offers multiple functionalities for facility management.

Cloud Architecture: The system cloud architecture was build to administrate and monitor hubs and devices offers support and post-sales tools.

INDUSTRIAL REMOTE MONITORING

The endgame for operational downtime

Quality meets efficiency

World Largest Chocolate Manufacturer

The client is one of the world's leading high-quality chocolate & cocoa products manufacturer. They are the heart and engine of the chocolate industry .

As many manufacturing companies in the Food Industry, they face an all-times challenge: Food Loss. Even-though manufacturing processes require a strict control over certain parameters such as temperature, humidity and storage air conditions, the ability to react on-time is what truly makes the difference helping them avoid inefficiencies caused by downtime.
They needed to make use of their existing technology to monitor critical production parameters in real-time and predict machine anomaly to control production and raw materials efficiently, reduce downtime and machine recalibration and inefficiencies associated with it.

KEY RESULTS

ELIMINATE MACHINE DOWTIME

VISUALIZE BOILER TEMPERATURE IN REAL-TIME TO AVOID LOSSES IN PRODUCTION

SMS/E-MAIL ALERT SYSTEM FOR ANOMALY DETECTION

100% REMOTE IMPLEMENTATION

Webee's approach

Webee provides solution to monitor several variables on PLCs devices 24x7. Through an Intel NUC we connected to the factory's PLCs to access the factory's network and send the information to Webee's Software automatically and in a non-intrusive way.

Our IoT Core automatically onboard the different machines (or data points). Once there, the client accesses Webee's Visual Data Stream Processing tool, and in a virtual canvas where they create the flows. Through drag & drop technology, our app builder let them organize the data and create dashboards to visualize and distribute it anyway they want. Webee software let the set up SMS-E-mail alerts and ''forms'' to tag the data of each PLC machine and detect patterns that will help to develop an ''algorithm'' to prevent machine malfunction. It's not just alerting in real-time but also a ''predictive artificial intelligence'' system.
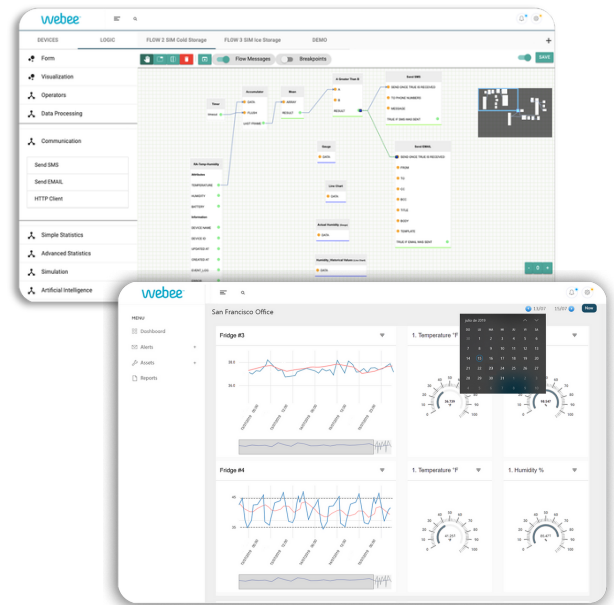
IOT CORE

Connects directly to the factory network and recognize machines automatically and show them on Webee's software.

VISUAL DATA STREAM PROCESSING

User create workflows and data processing using a visual virtual canvas to track water heater boilers at all times and detect temperature anomalies and energy consumption.

APP & DASHBOARD BUILDER

User automatically build and customize their dashboards and manage app distribution without special programming. Alerts are set up through SMS and email.

THE RESULTS

- Reduce number of food losses
- Prevent machine malfunction by monitoring and predicting if a variable is behaving unexpectedly before it happens.
- Visualize the data in real-time through our VIoT Dashboards.
- Receive SMS/E-mail alerts if there is an anomaly with the machine.
- Receive AI data training forms.Extract the historic data in CSV file for future analysis.

SMART FARMING

Farm meets IoT to reach the most remote lands

A true story of technology innovation

SmartYields

Originally founded in Honolulu, SmartYields spans through the world covering millions of acres to connect farms and providing their customers with insights to optimize production processes to reduce food waste and create sustainable farming operations.

Through quality data collection they solve major inefficiencies such as the lack of on-time accurate information that can make or break the yield and, therefore, all the hard work.

They came me up with a solution to eliminate manual work in extensive lands and ensure clients visibility of the soil and crops to improve the irrigation system. That's where Webee steps in, solving connectivity issues, reaching even the most remote areas.
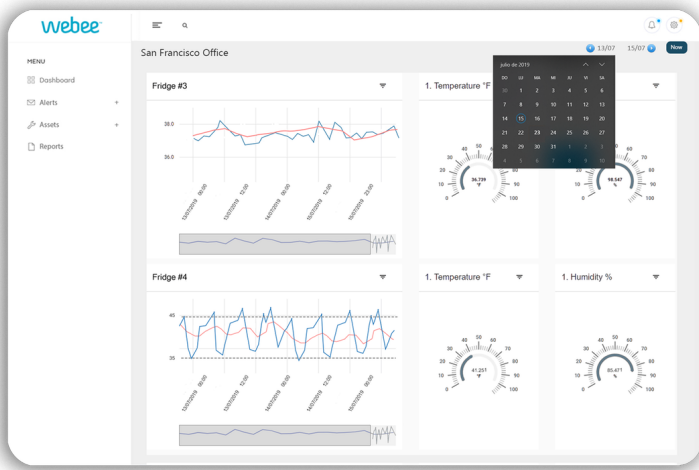
KEY RESULTS

IMPROVING IRRIGATION EFFICIENCY BY 99%

VISUALIZING TEMPERATURE, HUMIDITY AND SOIL MOISTURE IN REAL-TIME

SMS/E-MAIL ALERT SYSTEM FOR ANOMALY DETECTION

REDUCE IMPLEMENTATION TIMES TO DAYS

webee

To the point

SY needed a way to integrate what was already in place in their process: hardware and communication system. They just needed them to, in a way, speak the same language and to reach remote areas with no issues, so they could detect anomalies in time to make crop-saving decisions.

A new approach to a long-time challenge

SmartYields focuses on connecting farms and measuring soil conditions, ensuring they provide the best and most efficient solution to their clients. They needed to use technology to update their existing system so that when a sensor is found to have problems, they can notify and alert in real-time and make the decision to change the course of production and save the crop.

They came up with an innovative solution to solve the problem but as they tested different IoT and communication platforms and trying different ways, it proved to be both expensive and inadequate for their needs. They needed to find a fast and agile way to connect the existing technology efficiently.

A VERY FITING SOLUTION

Webee came in the picture with a solution for real-time temperature, humidity and soil moisture monitoring. By using the third-party hardware that was already in place and Sigfox's low-power communication system, we integrated all using our VIoT drag-and-drop no coding software.

Webee was able to complete the integration by adding a completely customizable, drag-and-drop Visual IoT software that requires no specialized engineers, speeding up deployment timelines. Also, Webee's solution is presented as a modular option, for the client to add to their own product.

COLD MONITORING

It't not you, it's your manual reporting

How a premium store solved a long time pain point in cold-monitoring in just minutes.

Pape Meat

This premium retail store is recognized for the high quality and freshness of it's products.To ensure the optimum quality they need to carefully control the environmental conditions and follow very strict processes to control temperature and humidity and meet cold-chain regulations.

"Webee gave me a peace of mind almost instantly. I just love having full control just over my phone. This solution has helped my business in so many critical ways". Ryan, General Manager

KEY RESULTS

ELIMINATED 100% OF LOSSES

PREDICT ANOMALIES IN EQUIPMENT AND AVOID DOWNTIME

REDUCE ENERGY CONSUMPTION

PERSONNEL EFFICIENCY BY AVOIDING MANUAL REPORTING

webee®

The Challenge

Temperature and humidity controls are done manually 5 times a day. This represents a very inconsistent process that relies solely in the staff. The lack of monitoring out of business hours (from 7.00 pm to 7.00 am) represents a huge risk.They have an average of 5 annual losses due to temperature malfunctions and lack of effective reporting.

The Solution

We offered the client with an easy-to-deploy solution that includes stick-and-play temperature and Humidity sensors for real-time monitoring of walk-in refrigeration rooms 24/7.We programmed SMS and e-mail alerts to inform temperature and humidity anomalies in real-time.We create an app in minutes so that they could visualize temperature and humidity monitoring of each room and access historical data.
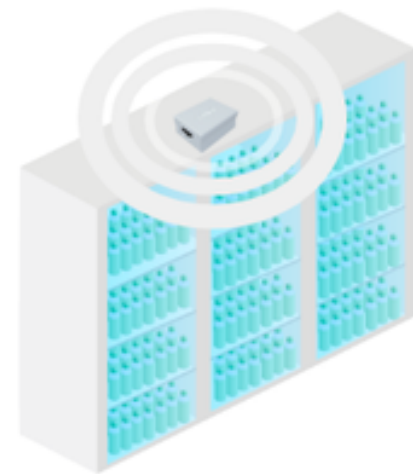
Step 1

Stick and play sensors that allow data extraction to measure:temperature, humidity and energy consumption.

Step 2

Intuitive logic builder to create alerts and reporting without any technical expertise

Step 3

Smart applications to access real-time alerts and monitoring as well as reporting.

100% LOSSES ELIMINATED

T"Webee gave me a peace of mind almost instantly. I just love having full control just over my phone. This solution has helped my business in so many critical ways".

Ryan, General Manager

WORKER SAFETY

Scaffolds: Connectivity, Information and Prevention

Technology that saves lives

IHI - Japan
Global Manufacturing Enterprise

Every year Japan suffers extremely violent and massive tropical typhoons that cause widespread destruction across its path. As a consequence, scaffolds installed for road construction fall and cause accidents on the street; they can range from property damage to most severe cases where even people get hurt.

Our corporate client knew technology could help them end this issue, and needed a solution to connect the hardware and software solution and detect these problems in real-time, to reduce the accidents generated every time that a scaffold collapses on the street; but most importantly, they needed to find a solution to prevent accidents altogether.

webee®

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KEY RESULTS

REDUCE THE NUMBER OF SCAFFOLD ACCIDENTS TO ZERO

SMS/E-MAIL ALERT SYSTEM FOR SCAFFOLD ANOMALY DETECTION

REDUCE IMPLEMENTATION TIMES FROM MONTHS TO DAYS

AI PREDICTION MODELS TO PREVENT ACCIDENTS

Why Webee?

The truth of the matter is that our more than 6 years of expertise in developing hardware and software IoT solutions guarantee the speed needed to deploy solutions efficiently, providing an absolutely reliable solution at a record time and drastically cutting down the costs and time of deployment.

Our Technology Approach

To help the company address the issue, Webee proposed a hardware and software solution, Japanese radio-certified, with the goal of preventing and monitoring scaffold movements in real-time.
The software solution is built with no-coding in our Visual IoT Platform (VIOT). After sensors are placed in the scaffolds, we connect them to our software automatically to then extract the data in real-time. Once in the software and through our no-coding app-builder feature the client can create customized dashboards to visualize the data, and set up an SMS-E-mail alert system. The intuitive software gives the client the power to customize it without the need of technical expertise.

HARDWARE APPROACH

Movement Sensor: With an accelerometer sensor in nine-axis we understand scaffolds movement in real-time. The sensor is connected wirelessly to the Gateway using LORA protocol.
Distance Sensor: Through an ultrasonic sensor we measure the distance between the scaffold and the ground in real-time.
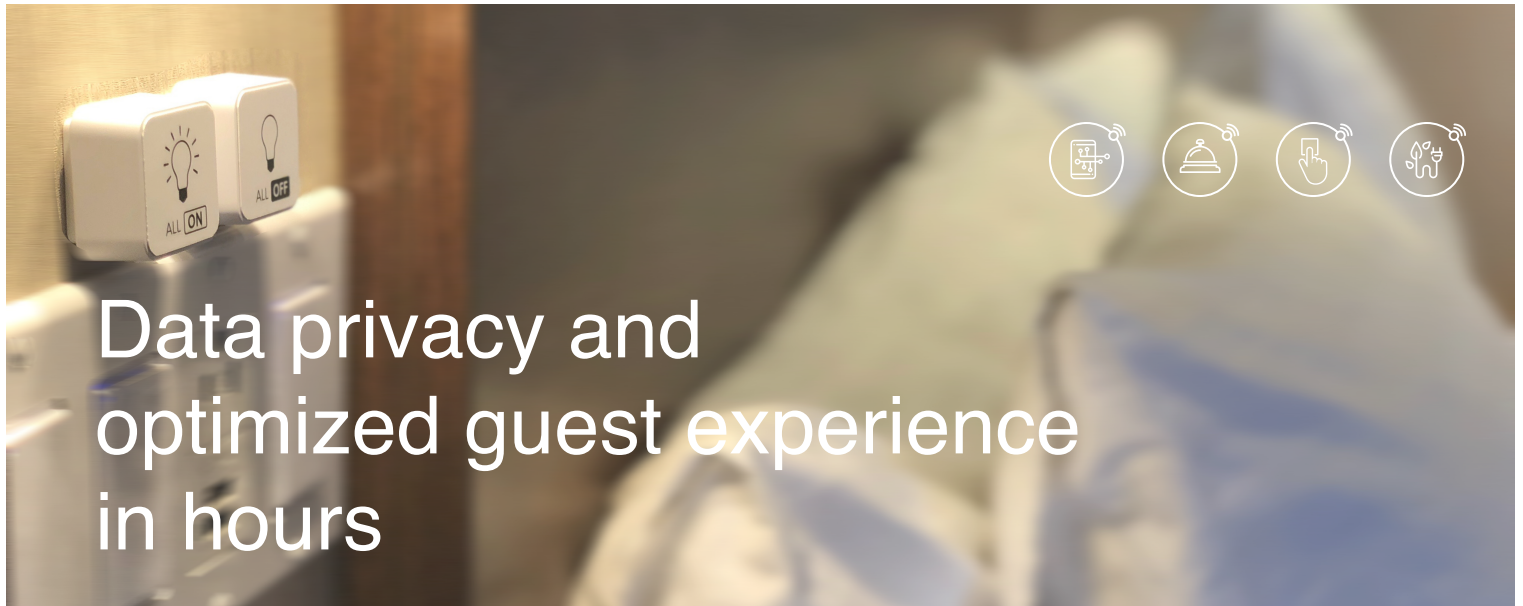
This device is connected wirelessly to a Gateway through LORA protocol.

Gateway: The gateway holds everything together and is the connection between the devices and the Webee software. It's 3G and it uses LORA protocol.

Strata Hotel
IoT Hotel Solution

Data privacy and optimized guest experience in hours

Hotel Strata is a unique boutique hotel located in the heart of Silicon Valley.
It's combination of service, comfort and convenience makes it an ideal place for business travelers in the Bay Area.
The hotel needed to continue to increase the added value and convenience to it's very sophisticated gues while keeping privacy as their main goal. The requests for value added solutions in the room plus their concerns about data privacy added a layer of complexity for the hotel. It make it more challenging to use new technologies to enhance their experience while meeting this requierement.

The Solution

They installed our smart switchs in all room lights and connected them to two wireless *Eny buttons* (powerless buttons that allow control) located in the night table. This two buttons triggered two commands: "All lights on"/"All lights off" with just one click.
Switchs were integrated cloud to cloud with PMS so that the concierge could create two scenes and modify them anytime without technical expertise:
a) Check in: Once guest check-in the PMS automatically turn on some lights in the room providing a warmer welcome to their first entrance to the room.
b) Check out: After guest checked-out the PMS automatically turn off all the lights inside the room to save energy and control the consumption.

The Results

Room connection was completed in less than 3 hours making it extremely easy to implement and without interrupting room occupancy.
Webee's Visual IoT allow the hotel to make any changes to the programming themselves without technical expertise.
100% of Guest use the new lighting control.
Labor cost saving: Housekeeping save time per room/per day turning on/off all the different lights in the room.
Hotel save a total of 25% in energy costs aproximately $13,687.50 annual savings for lighting energy, and $8,760.00 annual savings in house keeping.

Smart solutions for smarter business.

> "We are always looking for ways to optimize our guest experience keeping their data privacy and making sure we are making their stay comfortable. This solution help us control energy consumption and add convenience right out of the box. The best part, it was done in just hours and we can program it ourselves without technical expertise"

Strata General Manager

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