AGRICULTURE & FOOD PROCESSING

Skysens's Technology Enables Real-Time Analysis in Agriculture and Food Processing

DESCRIPTION

Skysens's state-of-art wireless IoT technology enables easy locating, tracking and monitoring environment from the production to the shipment, delivery and storage phases. (farms, food processors, storage areas, warehouses, etc.)

With the Internet of Things (IoT) tracking of environmental changes in farms, it is possible to reduce costs and increase efficiency by monitoring agriculture products'' freshness, harvest times etc. Skysens makes visible any previously invisible and suffering problems and enables faster data-driven decisions and prevents wastes.

Skysens technology consisting of devices, gateways and application is an affordable way to capture, track and manage all the data generated by your multiple locations. It provides an IoT network infrastructure which is expandable any moment with various sensors in a cost-effective way.

CHALLENGES

Food safety and quality are one of the major issues that valued by the consumers. From the harvesting process to the table, it is important to ensure food quality at the same level. Any unsafe processes can cause undesired results and high penalties for the food industry and may cause huge amounts of loss.

Skysens's IoT solution specially designed for agriculture and food processing helps you to eliminate these possible risks and manage your business more effectively, without any wastes and damages.

Also with integrated IT infrastructure approach, the user-friendly application provides you get instant alerts and take precautions immediately. In a farm, factory or food processing areas, Skysens gives managers all the information they require from the devices such as moisture information, temperature information etc.

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SMART BUSINESS

SUCCESS STORY

One of Turkey's leading players in high-quality crop seedlings companies wanted to increase their technology level. The company also had a strong logistics infrastructure, distribution network and supply chain its products to farmers and more than 1000 dealers all around Turkey. However, they do not have any infrastructure to track, monitor or manage any of these processes.

As the network of things company, Skysens had successfully implemented complete end-to-end IoT solution to manage and monitor this company's farms' temperature and moisture information. With low-power and wireless Skysens devices installation on the farms, facility managers could get the instant alarms in case of any need of any needs for irrigation.

Skysens' smart and expandable network provides a wireless network for multiple application in real-time, starting from monitoring critical infrastructure monitoring and remote metering and other third-party IoT applications. For example, with no additional infrastructure costs and the few more Skysens devices, it is possible to monitor and manage water, electric or gas consumption.
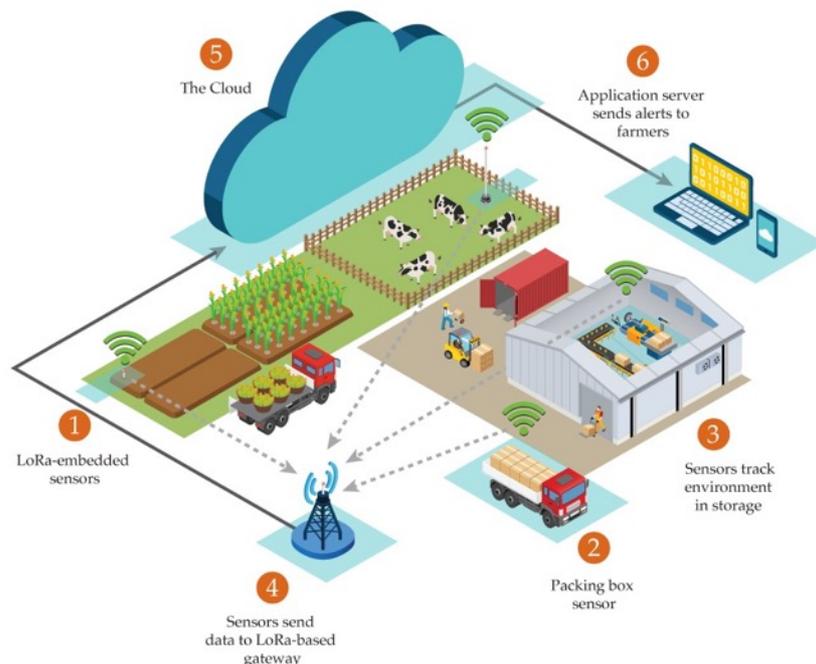
Skysens IoT devices simply connect to any metering devices and other infrastructure items provides the managerial tools all necessary functions, including the ability to view usage trends and to monitor each item remotely.

Skysens technology is perfect for dense areas due to its highly dynamic management algorithms for Radio Frequency Network.

Skysens system provides real-time end-to-end connectivity management which includes the firmware-over-air update and dynamic speed and frequency management depending on the application types.

It's a selective transmission algorithm and micro-edge processing capability enables Skysens devices to conduct an operation with the minimal transmission which means additional security and optimization both on power consumption and network spectrum.

With its optional 256-bit security layer Skysens provides financial-grade security. Also with the compatibility with global LoRaWAN protocol, Skysens provides global reliability, robustness, and access to the global ecosystem of IoT companies and system integrators.

5 The Cloud
6 Application server sends alerts to farmers
1 LoRa-embedded sensors
2 Packing box sensor
3 Sensors track environment in storage
4 Sensors send data to LoRa-based gateway

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HOW IT WORKS

Skysens's technology enables real-time connectivity, monitoring, cost savings, and analytics.

1. For optimization on the area, based devices are installed on soil then tracked and monitored via these devices.

2. Skysens gateways are installed about one per square mile, or farther if it is a large space. Skysens gateways gather information from the devices and send it to cloud or server on premises.

3. Skysens software is configured to collect all devices' data and track it permanently. This information is stored long-term, handled by a cloud-based or server on-premises application software, and accessed via the web, mobile devices, desktops, and tablets.

4. The temperature of the area is now visible in real-time and can be monitored in seconds with a smartphone.

5. Over time, data can be analyzed to detect any continuous problems on the soil or heating/cooling system and to reduce operating costs.

SKYSENS TECHNOLOGY

Skysens joined the **LoRa Alliance** in 2015 and leverages Low Power Wide Area Technology to help many companies in different industries such as agriculture and food processing around the world reduce the costs of production and harvesting.

COST EFFECTIVE

Skysens provides industry-special reliable communication technology designed to eliminate the cost of sim card-based systems and meet industrial needs with the affordable and easiest way.

Also, through its low-power consuming technology, Skysens devices' batteries can last up to 10 years without needing any refill.

PLUG & PLAY

Skysens's wireless devices allow you to connect and control your industry and built an IoT network in minutes!

WIRELESS & EXPANDABLE

Device count and type on your network can be extended without any infrastructural costs in case of any needs.

ADVANCED COMPATIBILITY

Skysens products ensure best global compatibility with global standards but yet with its additional algorithms and security layers provide the best technology. It provides high-integration capability with any third-party applications.

SECURE

Multiple layers of security ensure devices are tracked safely and central management of all devices ensures every piece of hardware on a network is up to date.

Skysens is a **LoRa Alliance** member company.
Learn about Skysens's Technology Platform
www.skysens.io/technology

www.skysens.io

Contact us on hello@skysens.io for more information

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