



Skysens's Technology Enables a Cost Effective Smart Grid Monitoring

DESCRIPTION

Skysens provides a wireless IoT network in the simplest and cost-effective way to monitor and analyze grids remotely in the city or a certain area.

With the Skysens Internet of Things (IoT) technology, metering the electrical grids aiming to monitor energy distribution, consumption, power quality, instabilities or decreases allows detecting the risky situations.

Skysens Smart Grid Monitoring System analyses the current power status and generates alerts via its application which also supported by its mobile version and allows you to take the precautions in case of the power changes or no-power situations in the electrical metering points.

Skysens creates a wireless network infrastructure which can be scaled easily upon other needs of the area such as tracking, temperature or water consumption monitoring.

BENEFITS

For the power provider companies, offering a reliable power supply to the end customers is not as easy as it seems when last-minute outages and customer minutes lost are considered. Lack of network monitoring causes unwanted scenarios of service quality. Also, energy theft is one the major issues companies are dealing with.

Skysens Smart Grid Monitoring System aims to optimize power distribution and consumption to maximize the efficiency of power usage. It monitors, analyses and helps to improve the quality of electricity supplied.

As the precaution, Skysens offers city managers a wireless network to monitor remotely and simultaneously all energy grids in multiple locations. Also, other main needs of a smarter city such as tracking vehicles or employees, monitoring water consumption or temperature etc. are possible with just a few changes without any infrastructure costs.

SMART GRID MONITORING

SUCCESS STORY

A municipality of one of the eastern cities of Turkey needed a solution to monitor energy consumption in a broad residential area. Besides with the capacity of more than 500 apartments with more than 3000 residents, the area has several restaurants, guesthouse, gym and playground for the children. There was no system or infrastructure to monitor consumed or wasted energy and optimize the power usage in such a wide area.

As the network of things company, Skysens had successfully implemented a complete end-to-end IoT solution to manage and monitor the distributed power in this residential area. With low-power and wireless Skysens devices' installation on various electric meters, residential managers could get the instant alarms in case of any risky power changes, power cuts or power over-use in different zones.

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 consumption, gas consumption or tracking mobile or stable assets or even people at the area.

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.



SMART GRID MONITORING

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 all the electric meters in order to enable tracking and monitoring.
2. Skysens gateways are installed about one per square mile, or farther if it is a large space. Skysens gateways gather information from these 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. Gathered information including power consumption, power quality or errors on each electric meter 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 these variables such as power instabilities or no-power detection, generate alarms and reduce risks.

SKYSENS TECHNOLOGY

Skysens joined the **LoRa Alliance** in 2015 and leverages Low Power Wide Area Technology to help many municipalities to help to start transformation to "smart cities".

COST EFFECTIVE

Skysens provides a reliable communication technology designed to eliminate the cost of sim card-based systems and meet smart cities' 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 city/area and built an IoT network in minutes!

WIRELESS & EXPANDABLE

Device count and type on the 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.

Contact us on hello@skysens.io for more information

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