

Fast and easy deployment of a Smart City building-management solution with Sensing Vision

October, 2018 | Version 1.0

"The reliability of Kerlink's products allows us to offer the maximum quality of service in Smart City solutions for critical needs in terms of energy efficiency."

Benoit Vagneur, Sensing Vision co-founder and president



Company name: Sensing Vision

Headquarters: Chevaigné, FRANCE

Year founded: 2017

Industry sector: Smart City

Building Energy Management



Kerlink Wirnet™ iFemtoCell is one of the gateways powering Sensing Vision's solution

Challenge

From the rural towns to bustling metropolises, building management systems are being installed around the world.

But beyond the cost efficiencies, increased personal comfort, energy savings or even "light-and-heating" management, municipalities require reliable tools to continuously monitor key metrics. Anticipating this market, the French start-up Sensing Vision designed an innovative smart-building management platform based on Kerlink Wirnet™ LoRaWAN™ gateways.

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Solution: a sensor to monitor each variable

In early 2018, Sensing Vision deployed its EnergyView solution in real operating conditions for one of the world's most compact smart cities - Chevaigné in Brittany. The Internet of Things network connects seven public buildings outfitted with environmental sensors (temperature, humidity, light, people presence), meter reading sensors (gas, electricity and water) and submetering sensors.

The installation of sensors across the city was the answer to meet city officials' performance targets, by monitoring:

- real-time status of public buildings (such as temperature, humidity, luminosity etc.)
- water, gas and electricity consumption, as well as the production of city's solar panels and submetering grid.

Thirty-one sensors were installed across the seven-square-kilometer village of 2,100 people.

In addition to monitoring ongoing building management, EnergyView enables the rapid identification of anomalies in the expected level of service. For example, it quickly informed operators of the overheating of a school building by nearly 3°C. Improved temperature regulation in Chevaigné's public buildings is expected to reduce energy costs by 20 percent.



A solution made possible with LoRaWAN™ gateways

Kerlink's LoRaWAN Wirnet Stations allow quick and easy deployment, creating a reliable and secure network in hours, thanks to their simple, streamlined architecture.

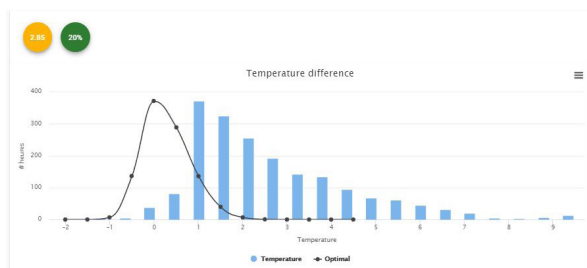
This complete Smart City solution delivers an answer to each of the city's building management needs:

- devices, from temperature to presence detection covering each smart building solution requirement
- gateways offering long-range network coverage
- hosting and web application to monitor the system

"EnergyView is a software-as-a-solution system that allows both quick installation and personalization that exactly fit the city's needs. We will continue to develop it to integrate increasing amounts of data and additional services to provide a complete experience and monitoring of buildings' metrics. The future model of smart cities will cover every part of the city from agent to teachers going through the associations. Sensing Vision is ready to guide this transition."

Olivier Seznec, Sensing Vision co-founder and technical director

The LoRa® architecture in Kerlink's equipment makes network deployment and supervision easier, enabling Chevaigné and its technical services personnel to operate and monitor the infrastructure autonomously. By allowing cities to operate their own small private networks, this model dramatically decreases costs compared to operated networks.



Screenshot of the Sensing Vision web application
Savings potential for the school : 20%

Artificial intelligence transforms the raw data, automatically identifying energy inefficiencies and waste, such as water leaks

The differentiating features of Sensing Vision's solution rely in embedded artificial intelligence, which processes data collected from:

- in-buildings sensors
- official meteorological data
- meta data from city officials (public holidays, opening hours).

Once data is received, the artificial intelligence creates a thermal dynamic model that will be applied to each building managed by the EnergyView solution.

The many benefits of this kind of solution include:

- in-depth understanding of buildings' thermal performance
- enabling non-specialists to easily identify and rectify deviations from expected performance in minutes
- providing a comfortable experience for building occupants

With Sensing Vision's system and Kerlink's easy-to-install and configure stations, a complete solution can be deployed in one day, providing immediate efficient monitoring and instantly lowering lighting and heating costs.

Read more:

Sensing Vision: <https://www.sensingvision.com>

More success stories: <https://www.kerlink.com/customers-usecases/use-cases/>