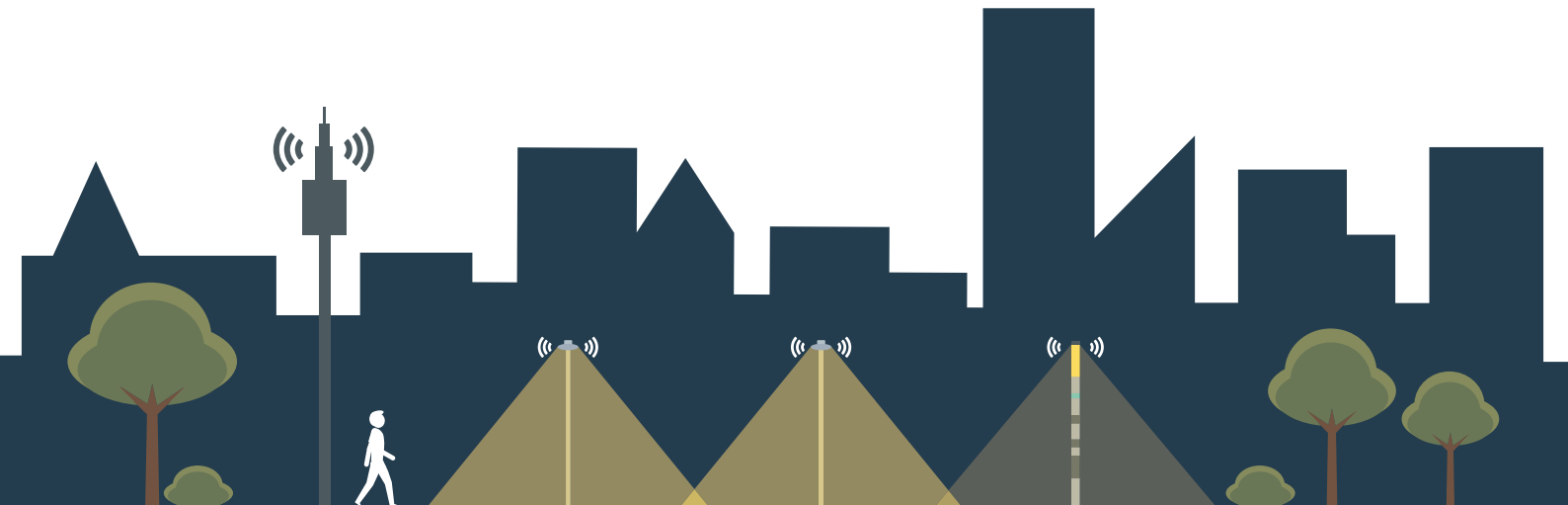


Howlet IoT

THE NEXT GENERATION OF CITY MANAGEMENT

INNOVATE TODAY TO MEET THE NEEDS OF TOMORROW



Schröder



Owlet IoT

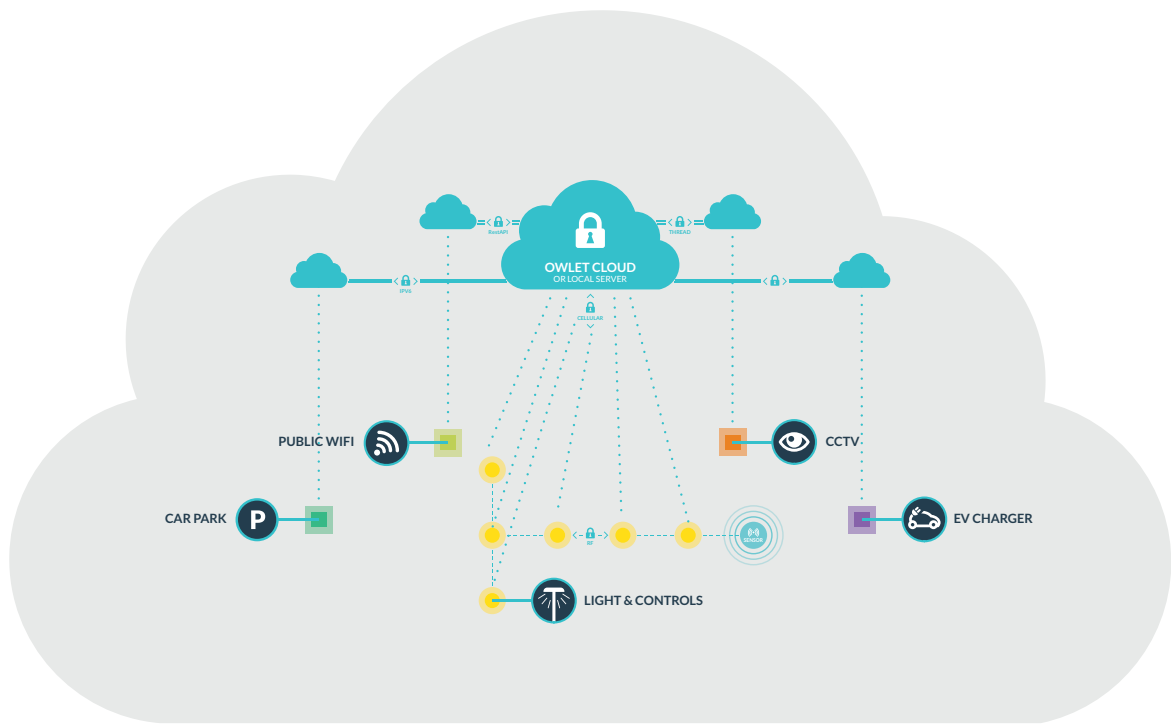
Owlet

Owlet is the range of smart control solutions offered by the Schröder Group. Owlet helps cities worldwide to reduce their energy bills by up to 85%, to manage expenses more efficiently, to improve maintenance and asset management and to provide an increased safety with enhanced well-being for their citizens.

IoT

The Internet of Things (IoT) is the network of physical objects, devices, vehicles, buildings and other items embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data.

The IoT allows objects to be sensed and controlled remotely across network infrastructure, creating opportunities for improved efficiency, accuracy and economic benefit. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing Internet infrastructure. The IoT is directly related to applications such as smart grids, intelligent transportation and smart cities.





Owlet IoT

THE NEXT GENERATION OF CITY MANAGEMENT

The Owlet IoT City Management System, which is based on Open Standards, can interact with larger smart city platforms. In fact, Owlet IoT is not only a high performing remote lighting management system, it can also exchange data or interoperate with neighbouring systems such as traffic management sensors, environmental monitoring systems or security devices.

One of the fundamentals of IoT (Internet of Things) is that the devices intended to be connected to a larger network communication platform have to be 'addressable' in a similar way. The structure of the

address which is attributed to this latest generation of luminaire controllers managed by Owlet IoT is called IPv6. This method of addressing devices can generate an almost unlimited number of unique combinations to connect non-traditional components to the Internet or computer network.

It's important to understand that Owlet IoT is not a stand-alone 'silo type' system, but future oriented and open to 3rd party integration.



EASY SET-UP

This next generation of the Owlet City Management System shows major progress in the set-up and commissioning process of the system. Thanks to the combination of an built-in GPS antenna and an intelligent auto-commissioning process, it is a real Plug and Play solution which does not require any intervention from the installer or contractor, nor any segment controllers.

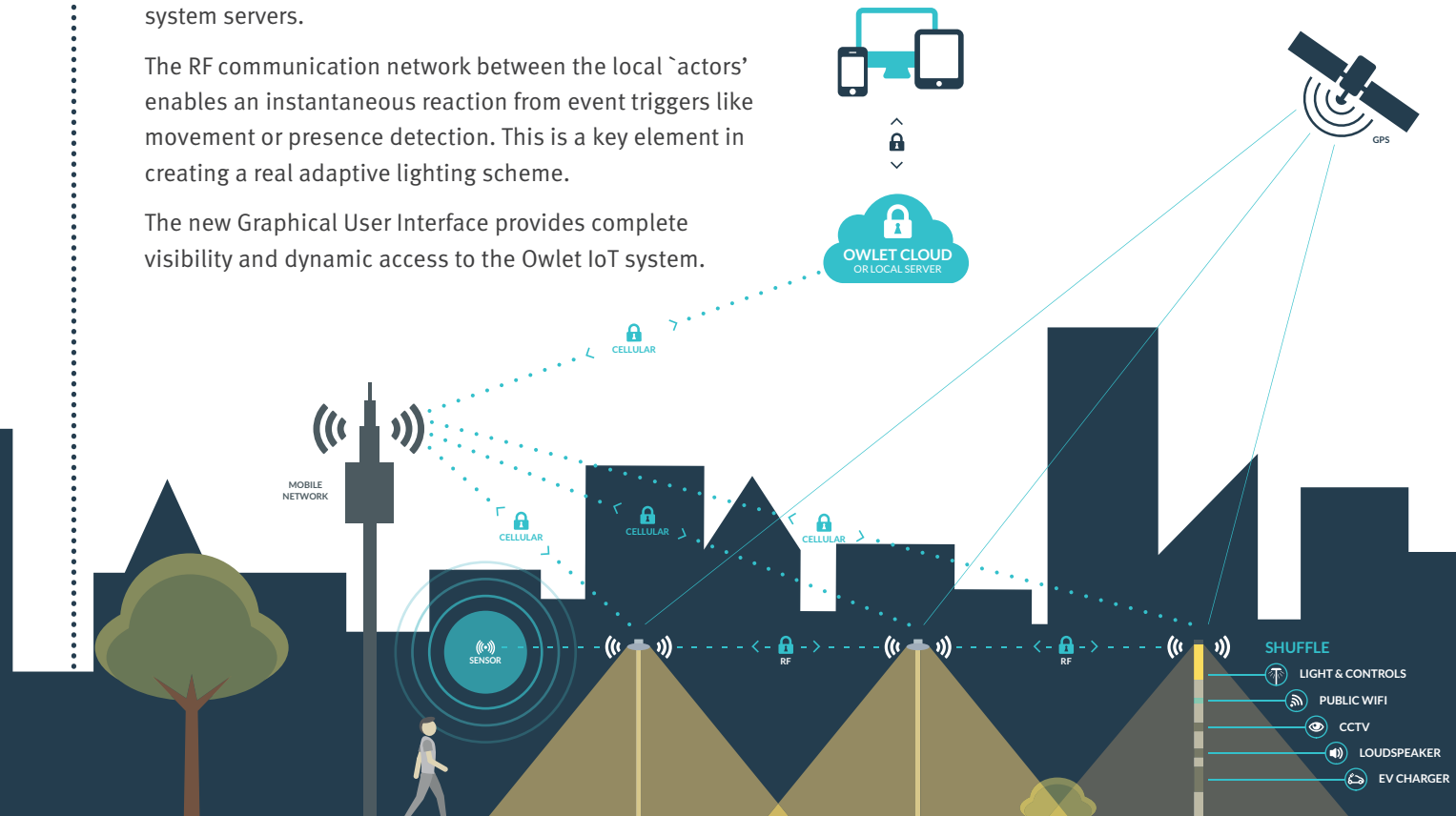
The luminaire controllers mounted on a universal 7 pin NEMA socket carry all the hard and software for an independent set-up. There is no need for the commissioning engineer to manually record the position of each luminaire.

SMART HYBRID ARCHITECTURE

The heart of the system is the full hybrid concept which provides the best of both worlds. It consists of a strong local mesh network between the luminaires and the sensors and a robust backhaul communication with the system servers.

The RF communication network between the local `actors' enables an instantaneous reaction from event triggers like movement or presence detection. This is a key element in creating a real adaptive lighting scheme.

The new Graphical User Interface provides complete visibility and dynamic access to the Owlet IoT system.



COMPATIBLE WITH SENSORS



Different types of sensors like PIR and radars are connected directly to the luminaire controller. As a consequence, no additional power supply is required. Sensors can be integrated into the Schröder luminaires, fixed to the pole or remotely installed. Thanks to a matrix concept, one sensor can be linked to multiple luminaires and vice versa, each luminaire can be linked to multiple sensor inputs. Switching the light levels from the lower 'idle' state to the higher 'event' state during the night, increases the visual performance as well as the level of comfort while maintaining or even increasing the potential energy reduction. The dimming signal from the luminaire controller to the driver can be either 1-10V or DALI.



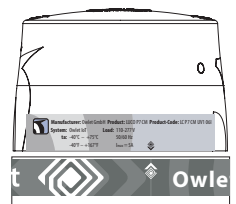
INSTANT GPS LOCATION

A built-in GPS accurately locates the luminaire position. **There is no need for field recording, scanning or manual mapping.** This feature simplifies the set-up and commissioning process to a large extent. It also detects location changes e.g. following maintenance.

EFFICIENT ASSET MANAGEMENT

The Owlet IoT luminaire controller incorporates a unique feature to capture the characteristics of the lighting scheme. This data and the precise luminaire position provided by the GPS feature determine the luminaire light profile for the given location.

Furthermore it serves as the basis for an active luminaire asset management system. This is a major advantage as it avoids the implementation of a supplementary (static) asset management system.



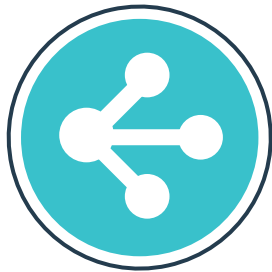
LUCO P7 RFID



LUCOP7 CM

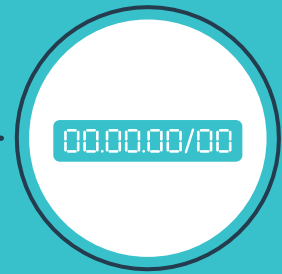
PLUG-AND-PLAY LUMINAIRE CONTROLLER

The Owlet IoT luminaire controller is based on the 7 pin NEMA socket. This standardised twist and lock receptacle is mounted on top of the luminaire. The node can be easily plugged in and replaced without any tools.



SAFE FALL-BACK SCENARIOS

As safety for all is the primary objective, multiple technologies ensure that the system is switched on and off in complete security. There are the switching and dimming commands provided by the profile in the system as well as the astronomical clock and built-in photocell to avoid a complete blackout at night.



PRECISE ENERGY CONSUMPTION MEASUREMENT

The nodes incorporate a built-in utility grade energy meter that offers the highest metering accuracy available on the market today (<1% for the complete dimming range). This feature will encourage the managers of public and privately-managed sites to invest in this technology as they can be certain that they will only have to pay for the energy consumed.

The savings, compared to traditional lighting networks, can be easily verified.

WEB-BASED APPLICATION

Modern software applications are often web-based. This means that the software does not have to be downloaded onto one or multiple computers. The application can be accessed by means of a username and password from every computer, tablet or mobile device connected to the internet. Each user is assigned a specific access to view or modify the parameters. All security measures have been taken to protect the system from any kind of intrusion.



INTUITIVE USER INTERFACE

The Graphical User Interface (GUI) was developed with the latest web-based application tools. Every user can organise his/her dashboard in such a way that the most relevant topics or parameters appear first. The GUI integrates OpenStreetMaps and in combination with a good icon design (shape and colour), it provides a great overall view at a glance.

In addition, the traditional reports regarding the status of the installation as well as the monitoring can be organised to suit the customers' needs.

OPERATIONAL BENEFITS

One of the unique assets of this dynamic lighting management system is its capacity to implement, adapt and reproduce lighting profiles and driver settings, which are typical for public lighting networks. Thanks to Schröder's experience and in-depth expertise as an outdoor lighting specialist, the Owlet IoT system provides extended operational features which simplify maintenance.

Moreover, specific additional features like 'wire theft detection', based on specific algorithms are integrated to further improve the added value and user experience.





SAFETY



WELL-BEING



SUSTAINABILITY



SAVINGS



SOLUTIONS

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