



# ORGANIC RESPONSE

THE WORLD'S MOST ELEGANT  
LIGHTING CONTROL SYSTEM



LTS

# ORGANIC RESPONSE

ONE SENSOR, ONE UNLIMITED  
NETWORK OF INTELLIGENT LUMINAIRES



## **Unboxing and set-up**

Essentially, the technology for Organic Response (OR) is formed by a sensor node, which is integrated into the luminaire itself. The system is already online without any further set-up. Unbox, install and supply with power. Just plug and play.



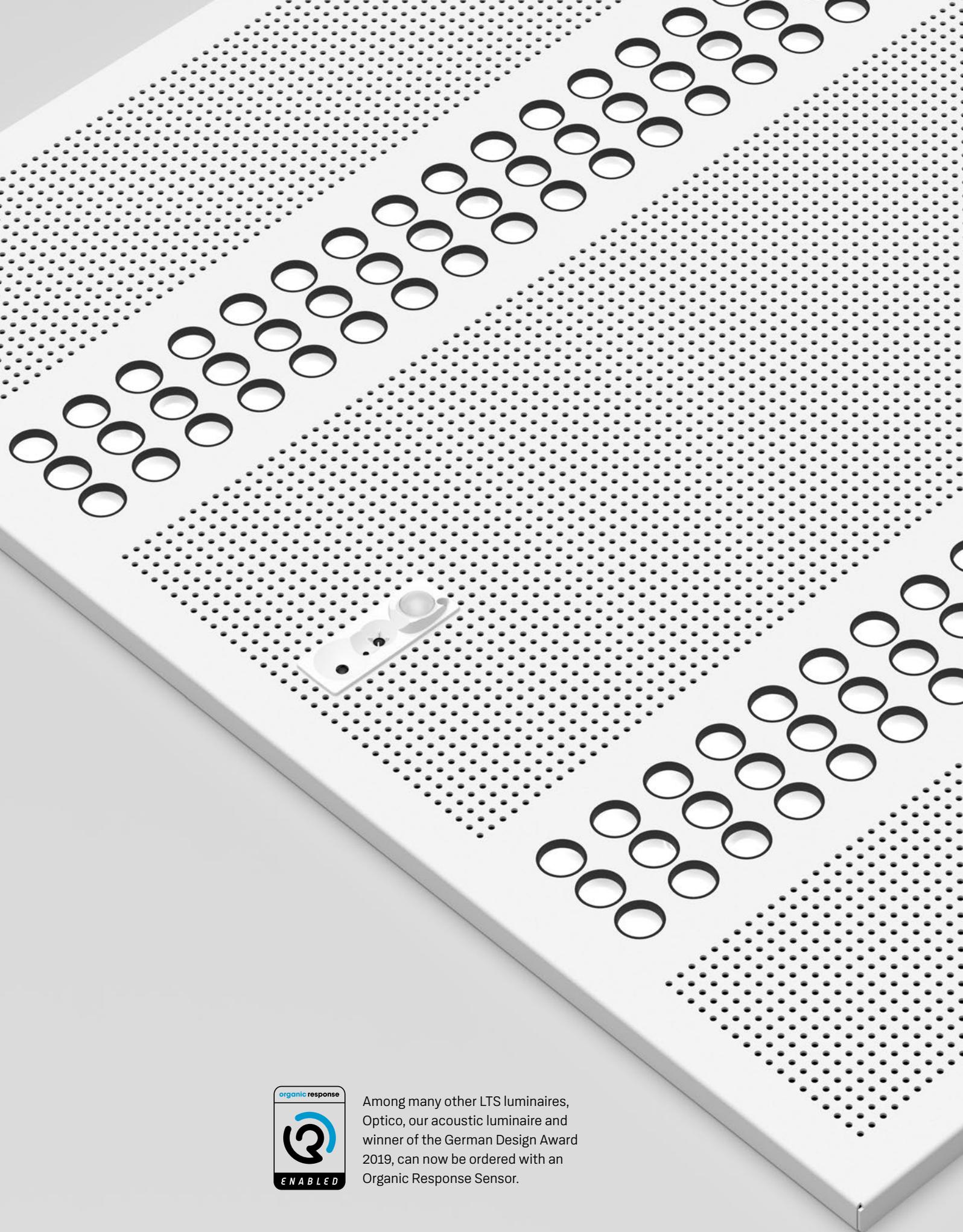
## **App-controlled**

Everything you need to use Organic Response can be found in the app and you can make subsequent adjustments and changes at any time in the event of a restructuring of the space.



## **Connected + API**

All data is collected in the Cloud via our platform - this can be accessed at any time. In combination with the central control option and API integration, this allows for the creation of intelligent spaces and buildings. With individual control via the app and the stored data, Organic Response provides a comprehensive analysis tool for optimizing your energy consumption.



Among many other LTS luminaires, Optico, our acoustic luminaire and winner of the German Design Award 2019, can now be ordered with an Organic Response Sensor.

# ONE SENSOR WITH UNLIMITED OPTIONS

The key feature of this unique system is the sensor node, which is fitted with a motion sensor, an ambient light sensor and BLE module and is therefore able to measure energy consumption.



## WIRELESS

Allows for wireless communication with the sensor, and the uploading of data to the Cloud, which functions as a beacon.



## MOTION

Adds value by removing the costs needed to add an external sensor to the lighting system



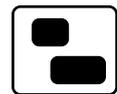
## LIGHTING

Lighting control and set-up without professional help to increase user comfort and lighting efficiency.



## MAINTENANCE

Real-time information on lighting energy consumption, operating hours and error messages.



## HEAT MAPS

Helps to optimize the space on the basis of comprehensive historical usage data and to make well-informed decisions on how to use the space more effectively.



- The concept of decentralized intelligence in the lighting control system allows for each individual luminaire to make illumination decisions based on the presence of people in their immediate environment, the level of ambient light and the occupancy information, which they obtain from their neighboring luminaires.
- The occupancy information is fed back to the luminaire network and forms the Occupancy Information Cloud. Depending on the occupancy structure, the system modifies its behavior and therefore provides intelligent and efficient illumination.
- The comprehensive dataset that is created in this way can be used together with other building systems or networks of third-party providers (by integrating an open API). Building protocols according to the industry standard allow for simple integration into the intelligent building ecosystem.

# ORGANIC RESPONSE APP

With the Organic Response app, you have control over your lighting system, so that an entire working area can be optimized in minutes with just a few adjustments. The Organic Response app can be downloaded for free in the Google Play and Apple App Stores.



You can find more information at [www.lts-light.com/en/organic-response](http://www.lts-light.com/en/organic-response)



# ORGANIC RESPONSE PORTAL PLATFORM

The web-based Organic Response portal platform can be accessed anywhere and at any time via supported web browsers (we recommend Chrome & Safari). The OR sensors collect, store and communicate data relating to occupancy, luminaire output and energy consumption. The entire OR system also includes the Organic Response Portal, which uses data to gain deeper insight into the workspace.

Data is stored in the Amazon AWS IoT and its security is guaranteed via 128 Bit AES and TLS.



# CREATE AGILE AND FLEXIBLE WORKSPACES WITH ORGANIC RESPONSE

## DAYLIGHT DIMMING

An ambient light sensor in each Organic Response sensor can be activated in order to maximize energy savings and user comfort.

## TUNABLE WHITE LIGHT (TWL)

Change the color temperature from 2700 K to 6500 K.

## ZONING

Organic Response-enabled luminaires can be grouped to form a zone. Zoning is particularly practical for break areas, offices with glass frontages and meeting rooms.



## SCENES

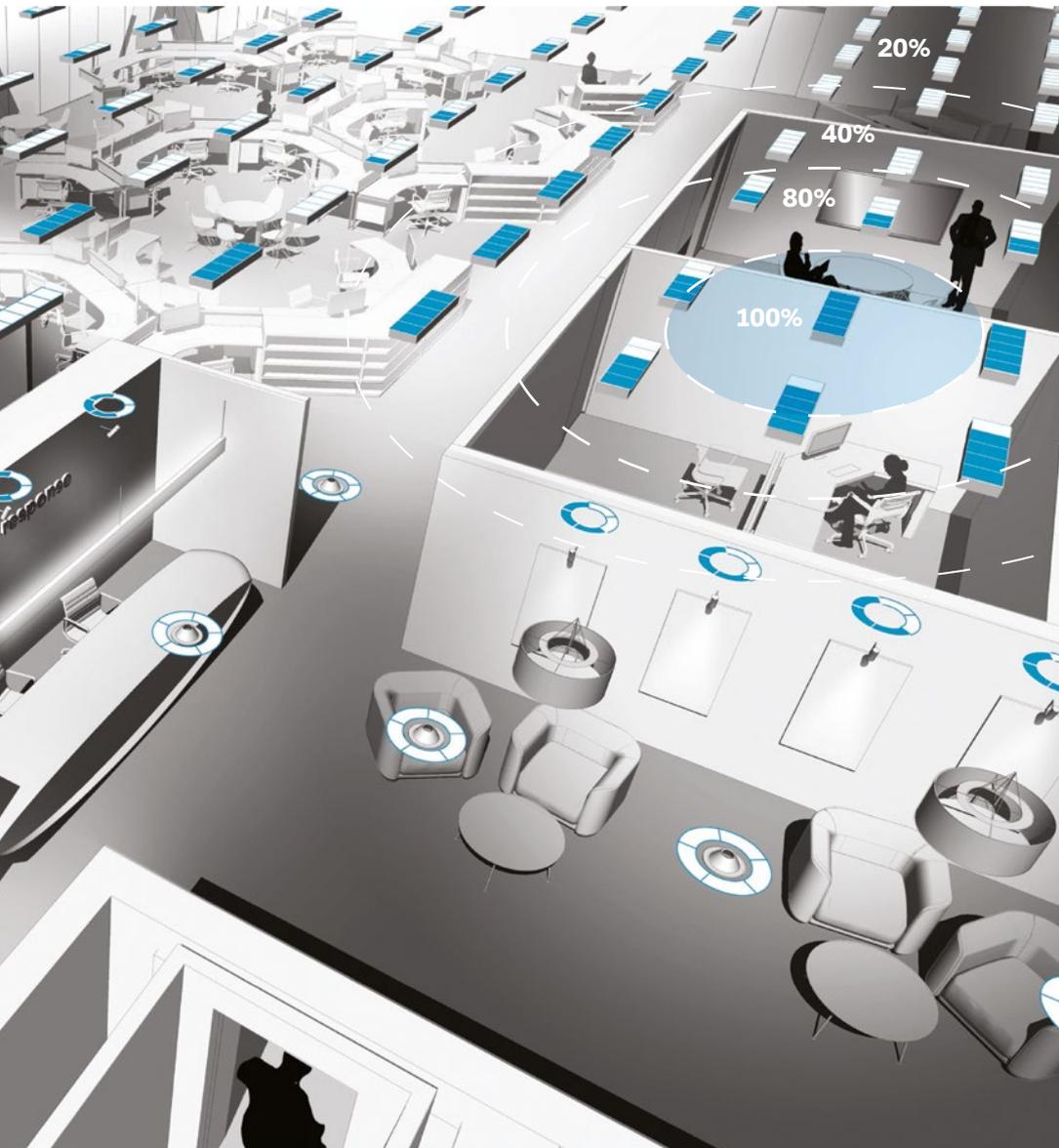
Easily configure and save six different scenes. Perfect for lighting control in meeting rooms or anywhere where individual dimmer control is required.

## START-UP MODE

The luminaires can be configured to enter a preset scene on start-up. This can reduce mains voltage and the generator load in the event of a power failure/emergency situation.

## HOW DOES THE ORGANIC RESPONSE SYSTEM WORK?

1. As soon as an OR sensor detects the presence of people, the luminaire responds by outputting a predefined light level. At the same time, it communicates with directly neighboring luminaires via a wireless infrared signal limited to level 1 and informs them that a person is in view.
2. When they receive this level 1 signal, the neighboring sensor nodes know that there is someone near to a luminaire, and they react by outputting a predetermined light level corresponding to this occupancy profile (e.g., 80% brightness). At the same time, they pass on a level 2 signal to their own neighbors to let them know about the relative proximity of the user.
3. This signal spreads over the entire floor and generates the Occupancy Information Cloud™. Each sensor node receives signals which indicate how close someone is, and reacts by outputting the corresponding light level on the basis of the diverse occupancy information that it is constantly receiving (and distributing).

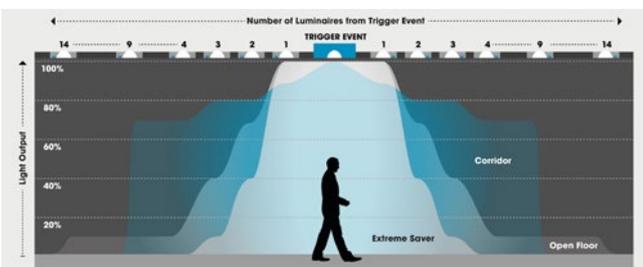


### LIGHTING CONTROL

Dim each individual luminaire in a certain zone. Maximum and minimum light values can also be adjusted according to client requirements.

### ENOCEAN WALL SWITCHES

These battery-free wall switches can be integrated into the Organic Response system. The switch can be configured using the Organic Response app. It is possible to configure both single and double switches.



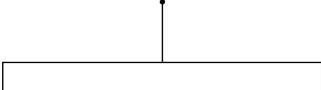
### CUSTOMIZATION

There is a series of predefined scenarios to choose from for different working areas, e.g., open-plan office, private office, corridor, super saver and many more.

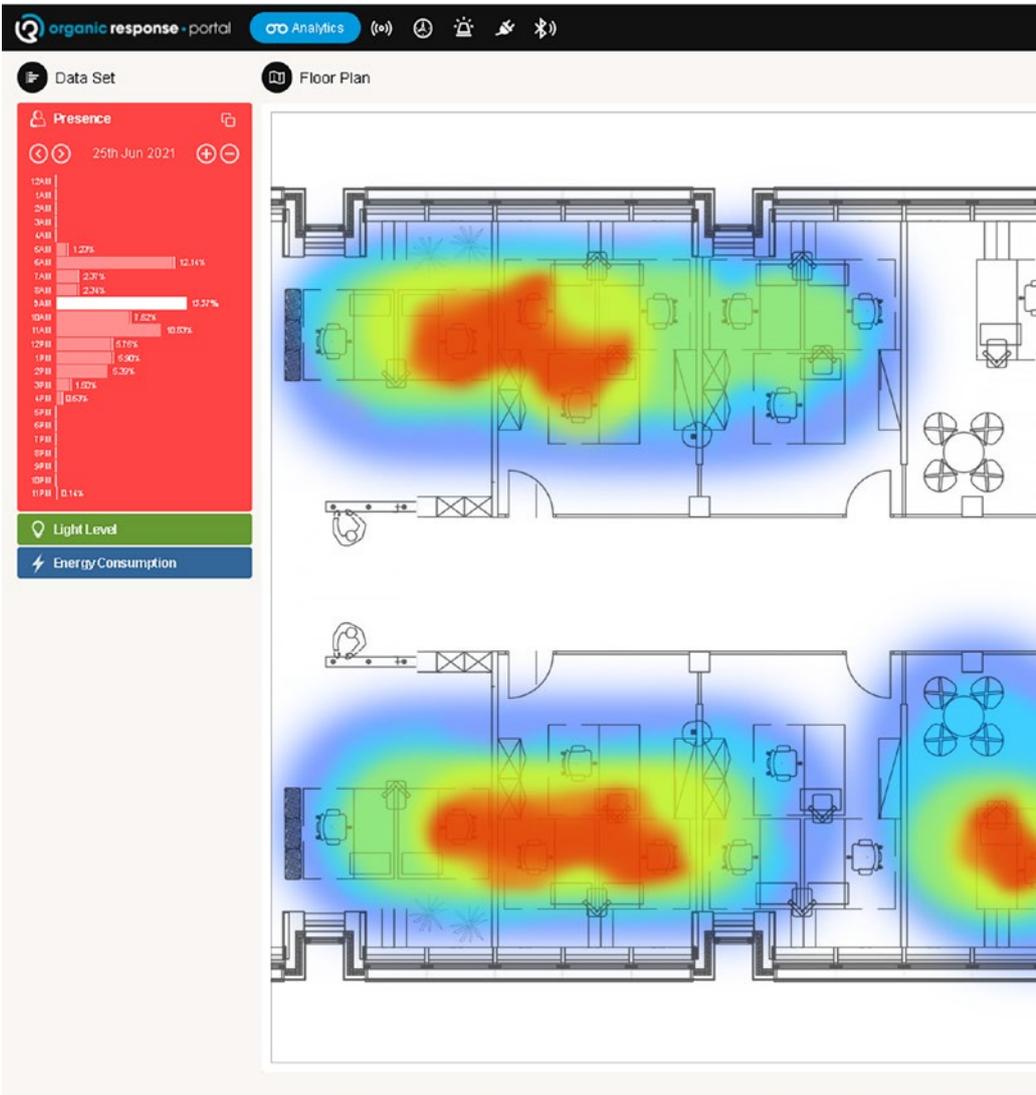
# ORGANIC RESPONSE PORTAL PLATFORM

### SENSOR MANAGEMENT

Toggle between different sensor functions. Access analytics to see real time and long-term data, view sensor nodes and create tagging systems, program different scheduling sequences, perform emergency light testing, integrate the building management system, enable/disable beaconing.



**ENERGY PERFORMANCE**  
Combine real-time and long-term data on energy consumption to make educated decisions about building performance.



### MANAGE BUILDINGS

Add buildings, floors and corresponding gateways. Also add users and assign them different roles.

View each floor of a building.



### IDENTIFY AND OPTIMIZE

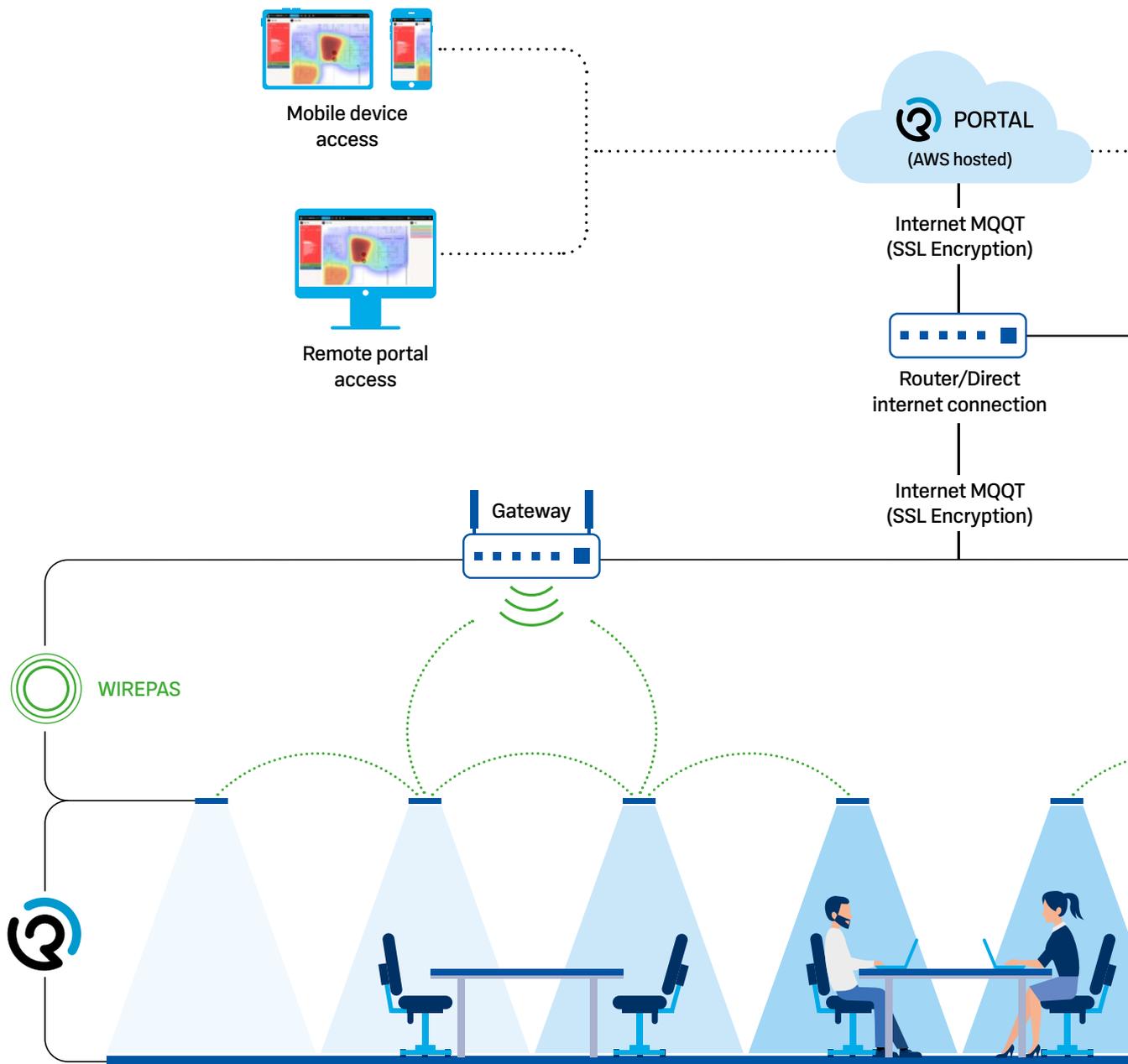
Organize the sensors in groups to conveniently change system performance based on building usage and to reduce costs.

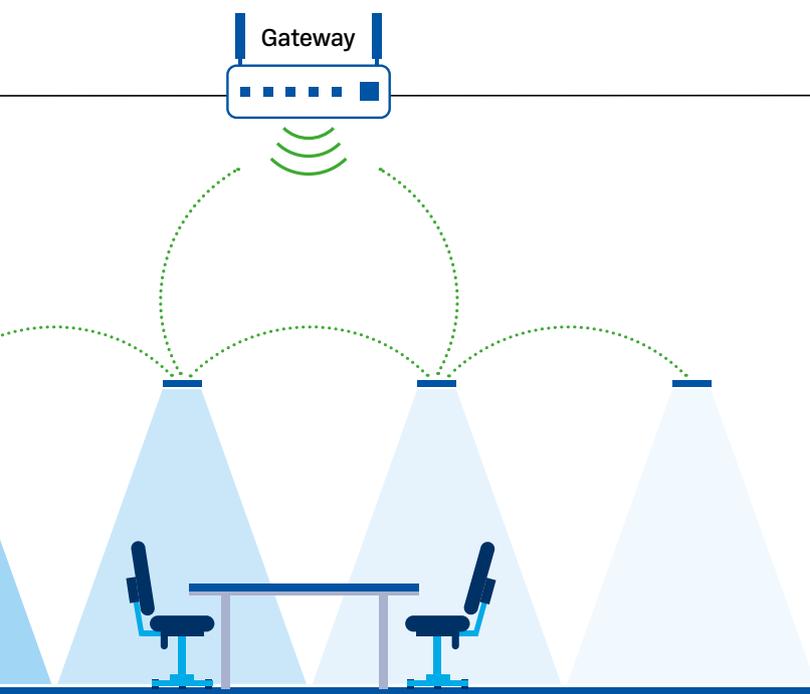
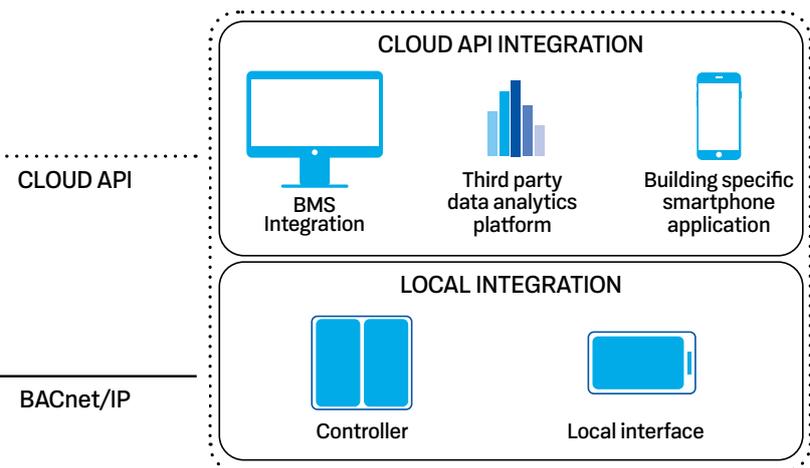
### SPACE UTILIZATION

Access real-time and historical data via heat maps and data sets to make decisions about the best use of space.

# ORGANIC RESPONSE

## THE SYSTEM





#### OPEN API or BACnet INTEGRATION

The client controls the data and integrates it into existing systems.

#### ORGANIC RESPONSE PORTAL

Offers Cloud-based data insights into luminaires and space.

#### GATEWAY

The interface that allows for data to be transmitted from the OR sensor to the OR Cloud.

#### POWERFUL WIREPAS MESH

The data from the OR sensors is sent on to the Gateway via the Mesh network. The Wirepas chip used by the Mesh network can also be configured to function as a BEACON.

#### IR COMMUNICATION BETWEEN THE OR SENSORS

OR-enabled luminaires communicate using IR technology, developed by Organic Response technologies.



Many of our products are available with Organic Response Technology. If you have any questions, please don't hesitate to get in touch. You will find everything there is to know about our Organic Response products, accessories and contact information at [www.lts-light.com/en/organic-reponse](http://www.lts-light.com/en/organic-reponse).



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