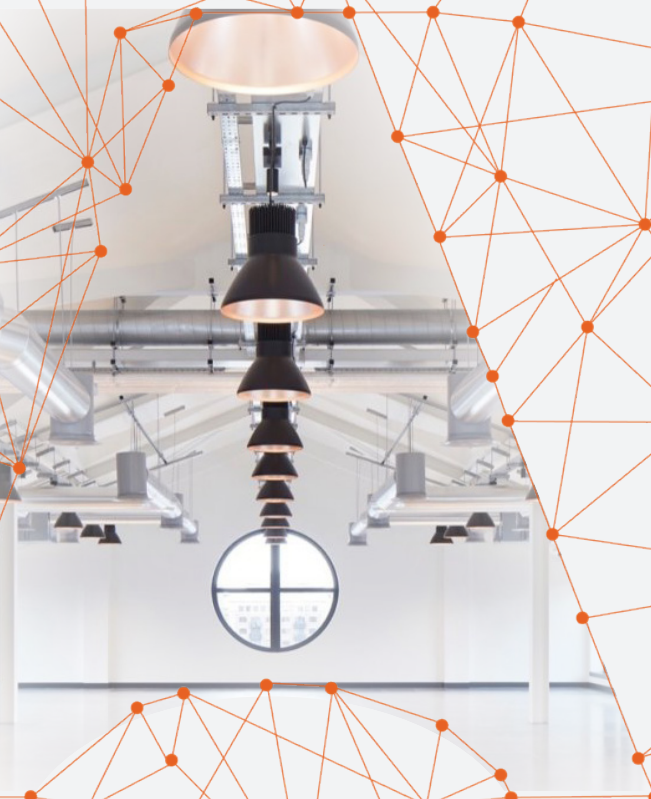


# CASAMBI

Total lighting control
for **Commercial** applications

ATRIVM



CASAMBI

# Total Lighting Control at your fingertips

Empower the users to create and control lighting conditions they need for every occasion.



## 01. What is Casambi?

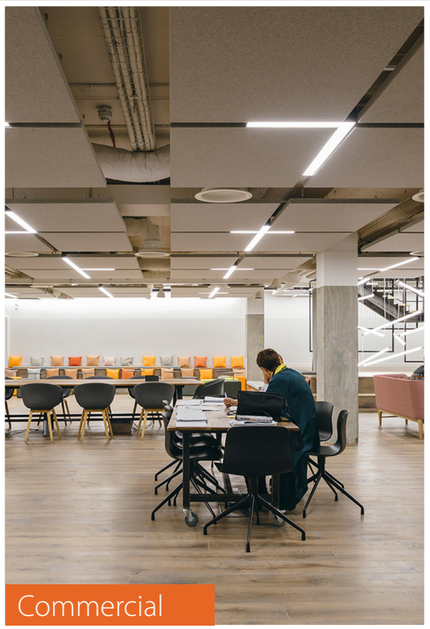
Casambi is a technology based on **Bluetooth Low Energy** (BLE), the only low-power wireless technology in all modern smartphones, tablets and smart watches.

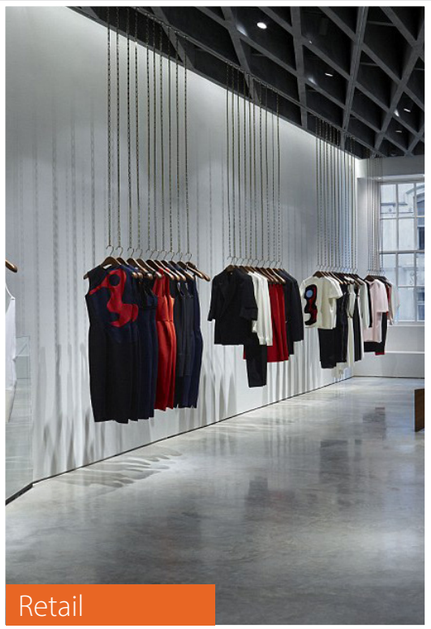
The Casambi technology provides robust, professional-level **smart lighting control** through a self-organising mesh network that can control a large number of fixtures from any point, with **no single points of failure**, and allow any kind of changes to be made over-the-air.

Casambi adhere to the Institutes' standards

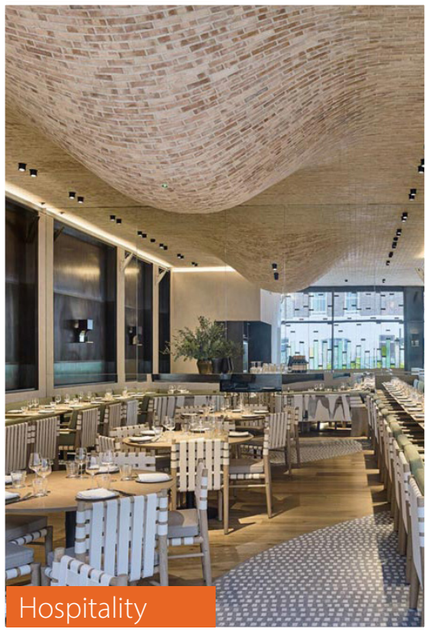
INTERNATIONAL WELL BUILDING INSTITUTE™

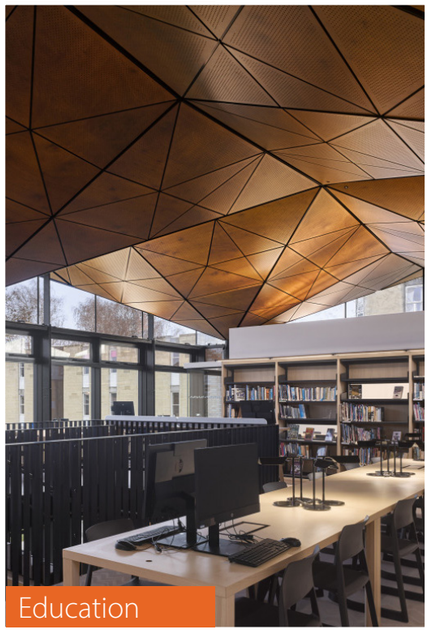
CODE FOR A SUSTAINABLE BUILT ENVIRONMENT BREEAM


Commercial


Retail


Health Care


Hospitality


Education


Leisure

# 02. What Casambi can do for you

With Casambi, you'll add **human-centric lighting** to your projects and create the lighting conditions that users need for every occasion.

Casambi is ideal for projects that want to **harness the Internet of Things**, providing a way to remotely communicate any measurable data like illuminance, humidity, presence, temperature, $CO_2$ levels and so on.



Set up luminaires individually or in groups



Turn lights on/off
Dim lights up/down



Change colour



Change colour temperature



Create Scenes



Animate Scenes



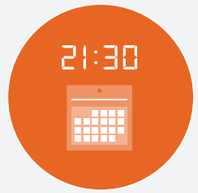
Create photo galleries of your actual spaces



Circadian Rhythm



Set up
Sunrise and Sunset




Set up
Calendar & Timer



Light Sensor



Motion Sensor



Scalability



Gateway



Cloud



Synchronising

# 03. What you can do with Casambi

Set up luminaries individually or in groups, turn them on/off, control intensity, hue or colour temperature, design lighting scenes, animations, photo galleries. Play with daylight or motion sensors, control settings like calendar/timer, sunrise/sunset, circadian rhythm...

...the possibilities are endless!

The Casambi system is **scalable** and you can create and control an unlimited amount of networks, which can be accessed and controlled remotely through the **Gateway** functionality.
The system is in constant **synchronisation** so any unit can go offline and catch up with others when they return back online.
Every unit can be read and analysed in each **parameter**, which can be also changed.



## Commercial

A commercial environment includes different functions like **Receive, Focus, Collaborate, Learn, Socialise**, each of which requires its own work atmosphere and a specific lighting design.

Whether the whole space is organised in clearly identifiable areas, or needs to be constantly repurposed (for example, a flexible co-working or an ever-changing environment), **an intelligent and highly customisable lighting design** that fulfils the occupants' needs becomes necessary, even more so when the purpose and the use of the building are not yet defined (for example, with Cat A buildings).

Casambi turns a lighting concept into one that is **smart, scalable, flexible, economical, and requires little maintenance**.



## Retail

More than ever, brands need to see **in-store shopping as an experience** – something online retail can't compete with.

Retail lighting is no longer limited to just displaying merchandise but it's also about giving a sense of direction, adding drama, or highlighting the architecture. Designers see the power that smart lighting design has on the overall **customer experience**. As a result, competition between brands has intensified, with brands competing for consumer attention by targeting all the consumer senses.

As retailers change design and lighting atmosphere periodically, you can apply **dynamic changes to your lighting design** without rewiring or reprogramming through Casambi.



## Health Care

New health care designs may have less of a traditionally clinical feel and more that of a welcoming place that offers the **quality of life** the patients deserve with minimal disruption to their daily life.

Casambi supports a lighting strategy that **improves the patients' wellbeing** through dynamic lighting settings that can change based on every person's needs and trigger a positive emotional stimulation.
A very powerful setting is the circadian lighting control system, which reflects the natural cycles of day and night, so critical for patients' proper rest.

In projects of this magnitude, often consisting of thousands of light points, Casambi guarantees a **very resilient system**, with minimal disruptions in a power failure event.



## Hospitality

Lighting plays an important role in **creating different atmospheres,** for example, in a restaurant, for breakfast, lunch, dinner, and drinks at night. Transitions between lighting scenes can be seamless and work based on preset timer functions.

Even a minimal intervention in the way lights are controlled can have a dramatic effect on the interior design and contribute to creating an **attractive space**.

Locations with historical heritage and limitations in the building interventions can immensly benefit from adopting the wireless Casambi system, because it doesn't require additional cabling; also, some original lamps can be restored and made functional through the new control system.







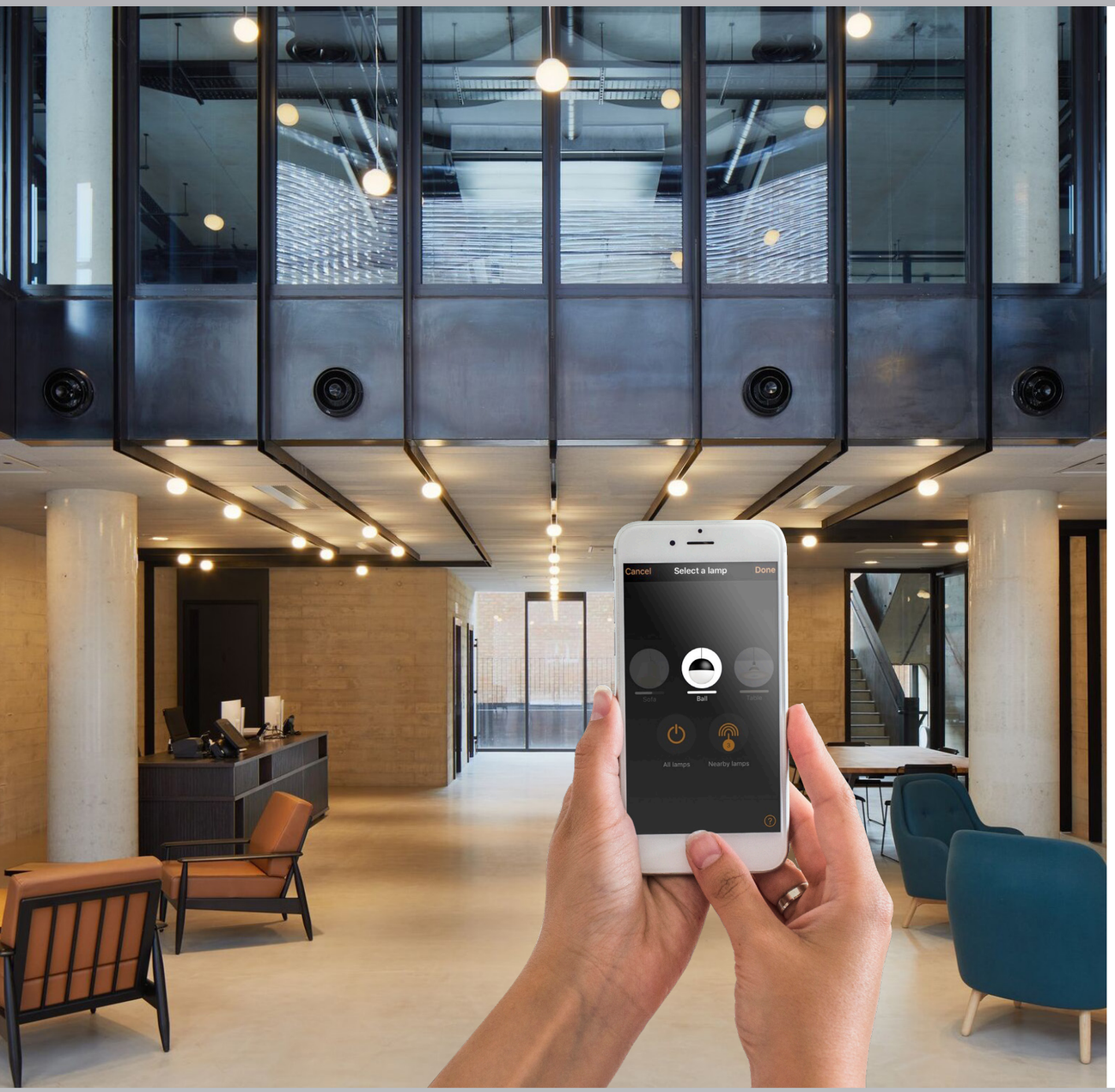

Through Casambi it's possible to provide and immersive and interactive user experience.



## Education

One of the issues that we may often experience in the educational environment is how to ensure **quality of light** (natural or artificial) and control it in large spaces - especially when users need to attend their visual tasks - while containing the costs of energy consumption when the space is not utilised.
Additionally, when some spaces need to fit multi-functional purposes, like hosting workshops, events, etc., a **flexible light** becomes indispensable.

With Casambi, lighting can be much smarter, responsive to the surrounding conditions and more flexible to support changing functions, layouts, and individual choices for a better experience. Smart lighting controls add to the well-being of people, constantly respond to the evolving needs of customers and enable further energy savings.




# 04. How to control light

## The Casambi App

To set up a system controlled with Casambi, you'll need the Casambi App and Casambi-compatible lighting products.

The Casambi App in the business environment works as a

**- Commissioning tool**
**- Remote Gataway**

The App has been designed to be intuitive and easy to use for all applications.
Casambi partners can implement and develop anything needed for a full featured lighting control system.

It works with iOS as well as Android devices, like smartphones, tablets and smartwatches. The app is free to download by any end user.




XPress by Casambi

# 04. How to control light

## Casambi Controllers

The Casambi Switch, Push Buttons and XPress work as a **User Interface** to control your settings. Once you've configured your lighting through the App, the controllers will allow you to select your preferred settings at any time with a single touch.



### Switches and Push buttons

A standard wall switch or a push button can be used for dimming, controlling a scene or to cycle through several scenes. In this way there is no need to install additional dimmers.



### Xpress

It can be configured to control luminaires wirelessly, dimming up and down or changing the colour temperature or balance of direct/indirect illumination.



### Customised Xpress

A Casambi partner can make their own proprietary Xpress controllers, to use its own brand colours and materials and have unique products on the market.



# 04. How to control light

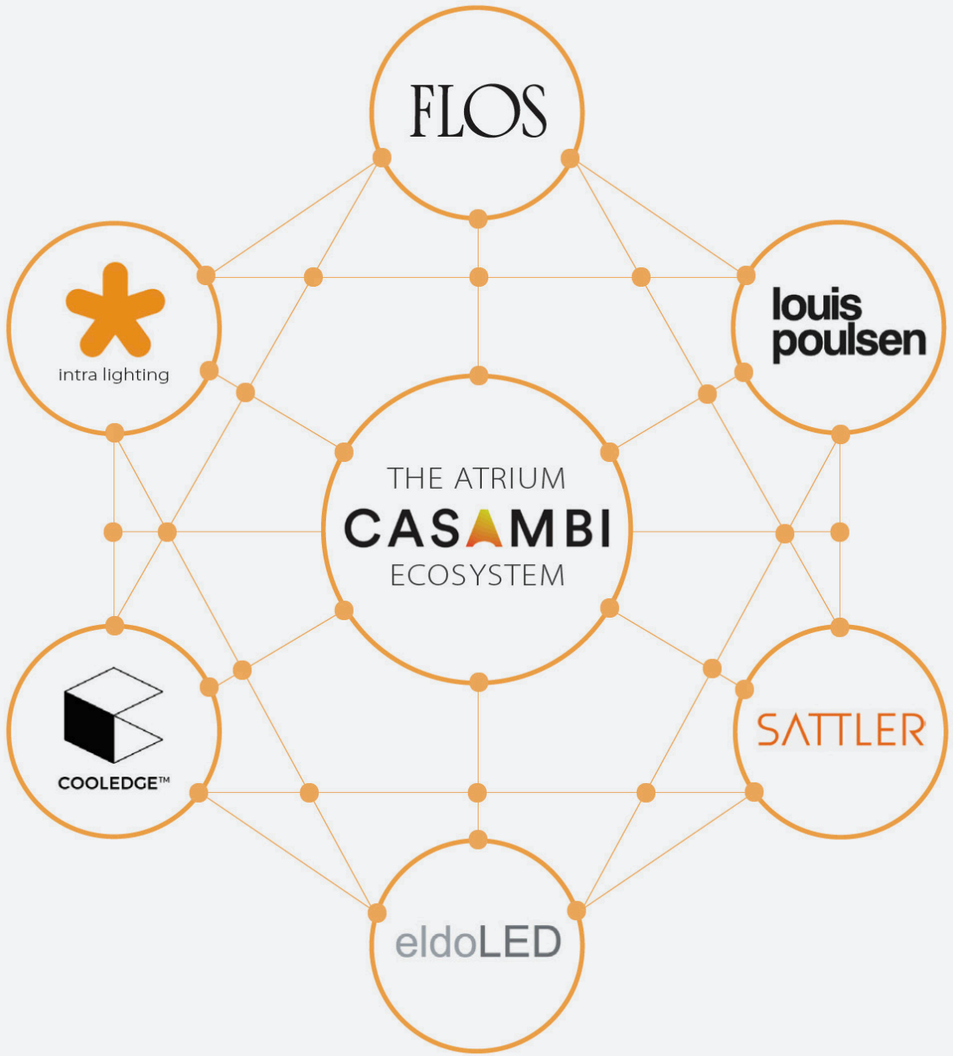
## Third Parties' Products

Thanks to the Casambi system's versatility, all of Casambi's partners products are compatible with each other as well as with all Casambi's native products.

**Interoperability** is at the heart of the Casambi solution – Casambi can be integrated into fixtures, LED drivers, LED modules, switches, sensors and several other control modules.

Casambi partners can provide additional functionality to satisfy specific customer needs, for example, create heat maps of people's movement in a retail environment.






# 05. Casambi-enabled luminaires

By officially partnering with Casambi, and
together with our exclusive lighting brands –

**Cooledge | Flos | Louis Poulsen | Intra Lighting | Sattler**

– already Casambi partners, Atrium can support
you with **end-to-end lighting solutions** through
a rich selection of Casambi-enabled products,
spanning from the **architectural** to the
**decorative** and **outdoor** ranges.























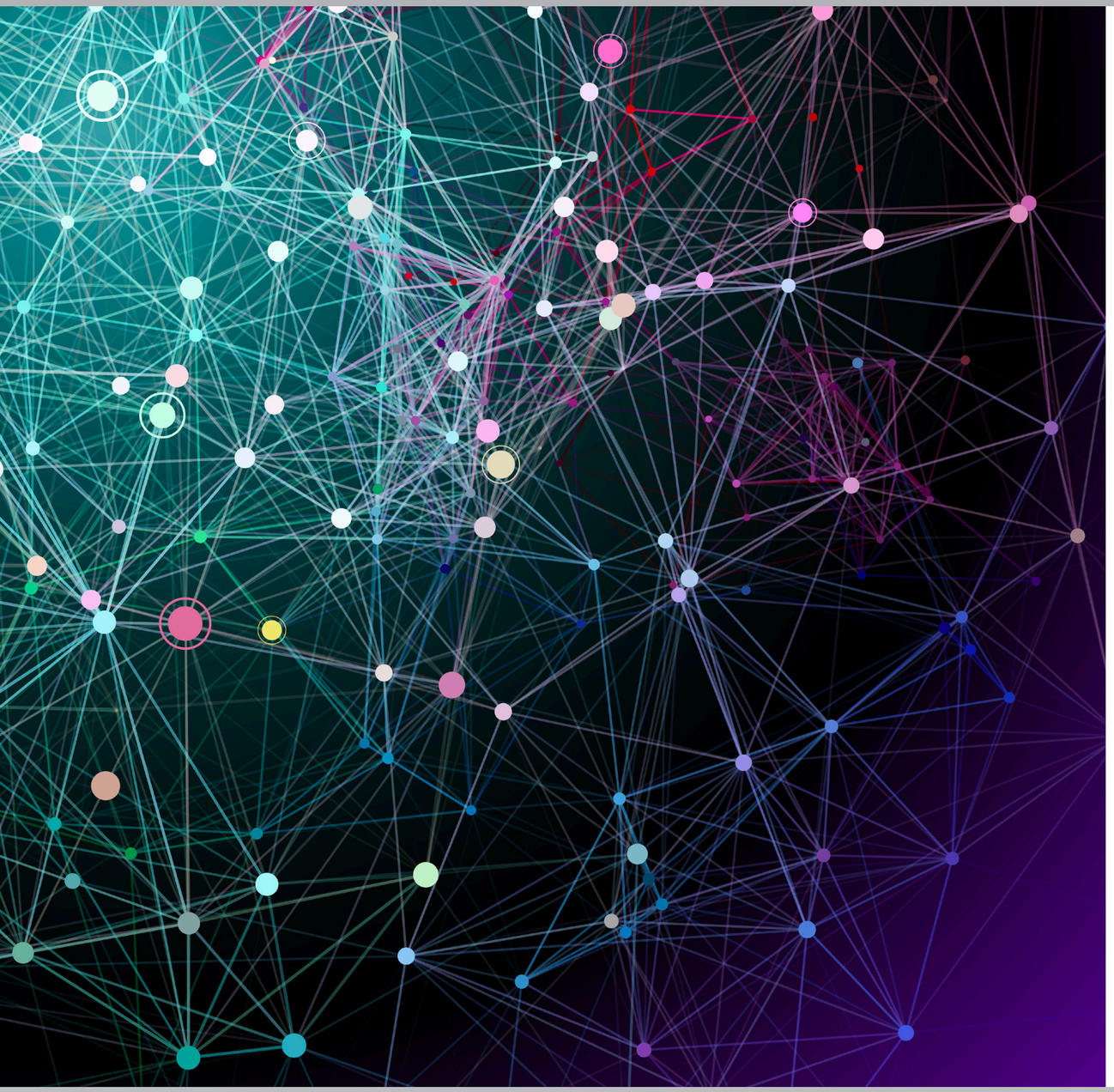








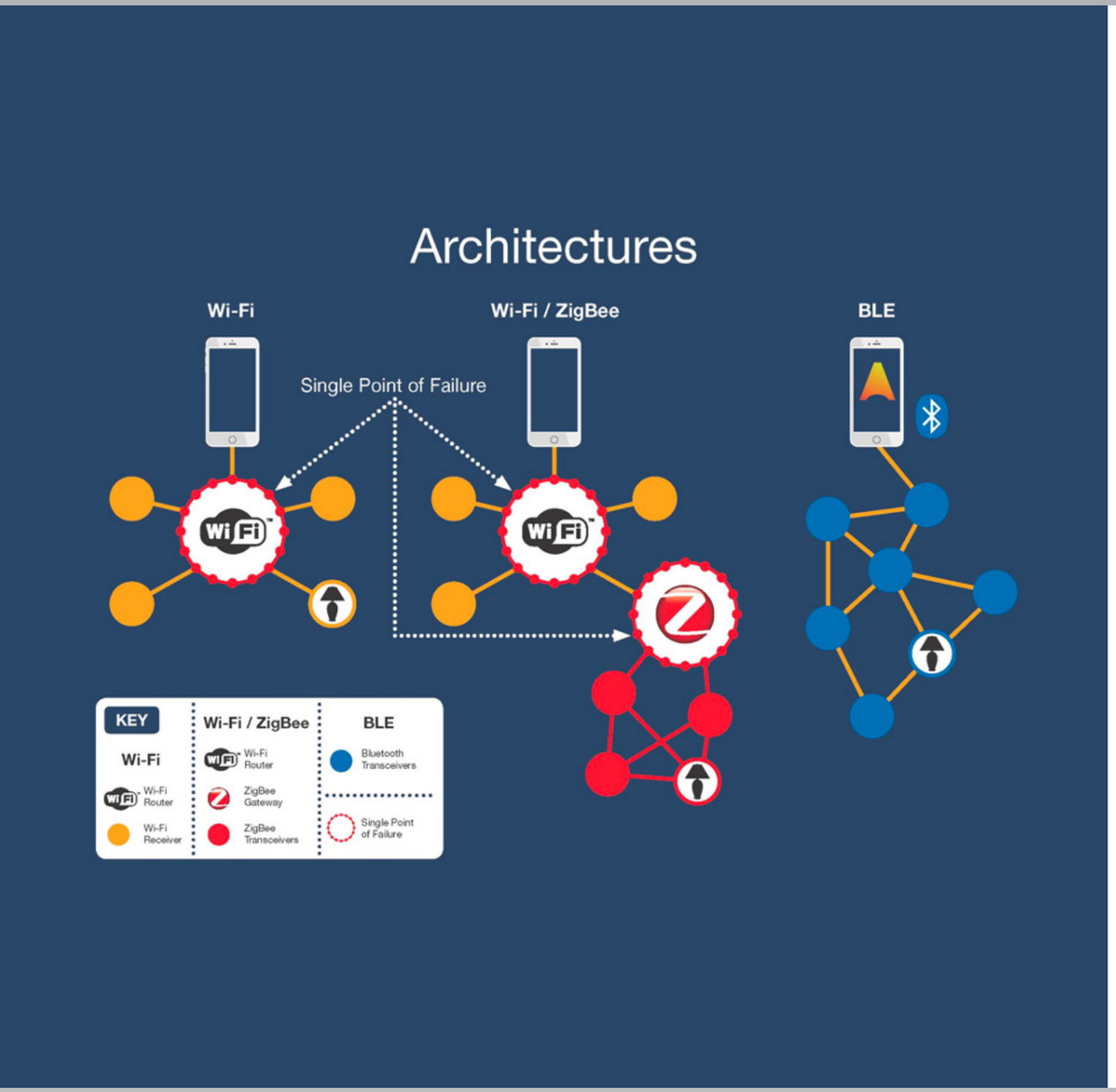




# 06. Supported Standards

Casambi supports key standards with significant market presence.
Some of the standards that Casambi supports today are:

- **Bluetooth 4.0**, most widely used low power radio standard
- **Apple iOS and Android** devices
- **DALI**, most widely used digital lighting control standard
- **EnOcean (BLE)**, the standard for energy harvesting switches
- **iBeacon**, indoor location technology for BLE devices
- **Phase cut dimming**, most widely used dimming technology
- **1-10V**, second most widely used analog dimming technology




# 07. Casambi vs Wi-Fi based Systems

| Wi-Fi based (eg DALI, Zigbee) | Casambi |
|---|---|
| Requires wiring, which means additional costs | It's wireless |
| It works through Wi-Fi network, which requires an internet connection | It works through Bluetooth. An internet connection is required only when updating the system |
| Reliance on a Gateway that introduces a point of failure | Ensures no points of failure |
| | With a DALI Gateway module, Casambi networks can be integrated with existing DALI control systems |




# 08. Why choose Casambi

## Easy to use
Intuitive user interface, everyone can use it

## Low-Cost maintenance
Less cabling = Less wiring = Less cost, time, energy, labour

## Non-invasive
As a wireless solution, it's perfect for retrofitting as well as new building projects

## Flexibility
Can be reconfigured or expanded to accommodate modifications at any time

## Stability and Security
The system doesn't need Wi-Fi to operate, so no interferences or weak signal that could compromise security

The Casambi range of possibilities goes beyond lighting control and adds more stability, scalability and better user experience to your project. Casambi partners can develop unique and specific features and products that could be controlling any relay equipped objects.





# 09. Environmental Benefits

## Significantly reduced costs

This is achievable through significant reduction in cabling needed versus other dimming options (i.e. DALI, 1-10V). Also, less wiring means much less copper which is far more sustainable.

## Reduced energy consumption

No additional wiring required means less time, energy, costs, labour, waste, and therefore less carbon footprint.

## Extremely advanced level of control,

which means no need for unnecessary luminaires on, also increases lamp and lighting component life.

If you wish to receive further information,
please contact **casambisales@atrium.ltd.uk**

ATRIVM

Quality of Light means Quality of Life

LONDON | 28 Leonard Street • London EC2A 4BY • United Kingdom • t +44 (0)20 7681 9933
EDINBURGH | Stuart House • Eskmills • Musselburgh EH21 7PB • United Kingdom • t +44 (0)131 5530269
www.atrium.ltd.uk