Highlights

High quality lighting in schools is known to significantly improve the well-being and performance of students and staff. Research has shown that school facility design affects student learning, attendance, and teacher turnover rates[1]. In addition, students consider lighting an important design factor in classroom environments[2]. A year-long study conducted by Dr. Michael Schulte-Markwort, Director of the Clinic for Psychosomatics in Children and Juveniles at the University Medical Centre Hamburg-Eppendorf, found that correct lighting in the classroom, in terms of intensity, color temperature, and dynamism, helps to increase reading speed by 35%, and reduces comprehension errors by 45%. It was also shown that warm lighting can reduce hyperactivity in the classroom by up to 76%.

This design guide outlines how the versatility of Casambi wireless lighting control system can serve the diverse needs of educational spaces. Casambi's state-of-the-art technology is aligned with the trends and dynamics of the education sector, bringing further benefits beyond illumination, such as providing visual comfort, air quality, wellbeing, various scenes for different tasks and customizable circadian profiles to enhance students experience and allowing remote access for easier operation and maintenance. To facilitate this new approach to learning, education spaces need to be flexible, multifunctional and easily modifiable. Casambi offers the perfect solution to meet the modern schools' stringent lighting control demands.

[1]. D.J. O'Neill, A.D. Oates, The impact of school facilities on student achievement, behavior, attendance, and teacher turnover rate in central Texas middle schools, Educ. Facil. Plan, 36 (2001), pp. 14-22
[2]. N. Castilla, C. Llinares, J.M. Bravo, V. Blanca, Subjective assessment of university classroom environment, Build. Environ., 122 (2017), pp. 72-81

Consultant & Lighting Designer

- Freedom in product choice & design flexibility
- Versatility and flexibility for all applications
- No complex wiring diagrams

Installer & Commissioner

- Quick & easy to install
- No control cables needed
- Commission via the free app
- Ease of troubleshooting

Owner / Facilities Manager

- Reduced total cost of ownership
- Energy efficient & cost effective
- Simple reconfiguration without disruption
- Building accreditations
- Quick and easy device replacement – no reprogramming
- Remote access

Students

- Visual comfort & well-being
- Task tuning and personalization
- Human-centric lighting & customizable circadian profiles
- Various scenes for different tasks

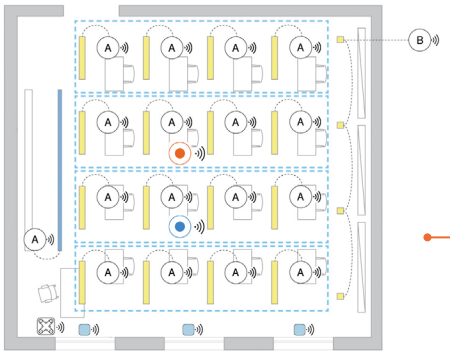
How to read this guide?

Room Type

Solution Type

1. Classroom - Type B

Group Control



- Standard luminaire
- Standard whiteboard luminaire
- Standard ON-OFF luminaire
- Casambi Ready occupancy and light sensor
- Casambi Ready air quality sensor
- Casambi Ready blind controller
- Casambi Ready driver
- Casambi Ready relay
- Casambi wireless Xpress switch

Devices

LUMINAIRE	Standard luminaire	+ A 16 →
	Standard whiteboard luminaire	+ A 1 →
	Standard ON-OFF luminaire	+ B 1 →
SWITCH	Casambi wireless Xpress switch	1
SENSOR	Casambi Ready occupancy and light sensor	1
	Casambi Ready air quality sensor	1
	Casambi Ready blind controller	3

Functionality

- Calendar and Timer
- Scenes
- Occupancy Detection
- Daylight Harvesting
- Human Centric Lighting

4 Education - V3.0 EN

For more information www.casambi.com/ecosystem

CASAMBI

Learn about the products used in the space

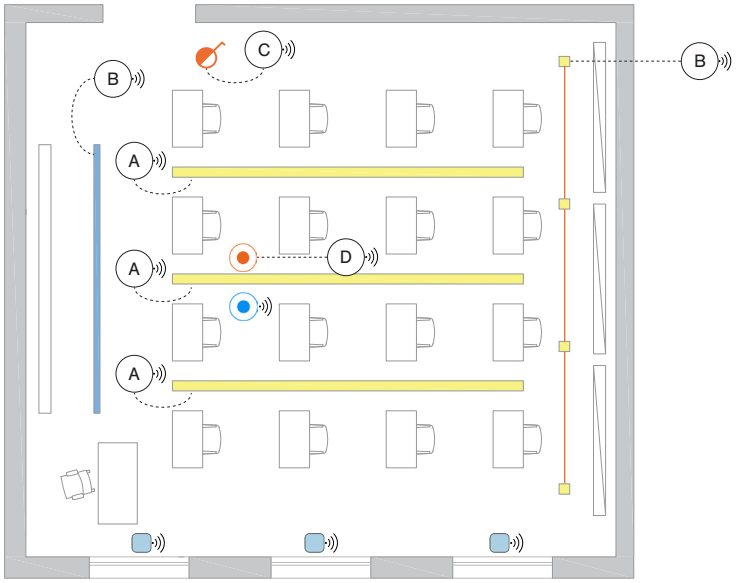
Understand how the products are laid out in the space

Understand what products would be needed to achieve the strategies

Learn what strategies can be implemented in the space

1. Classroom - Type A

Retrofit



DALI Bus

Tunable White LED trunking luminaire

Standard whiteboard luminaire DALI

Tunable White luminaire DALI

Standard occupancy and light sensor

Casambi Ready air quality sensor

Conventional wired switch

Casambi Ready blind controller

A Casambi Ready driver

B Casambi wireless controller DALI

C Casambi Ready Input controller

D Casambi wireless controller

Devices

LUMINAIRE	Tunable White LED trunking luminaire	+ A 3 →
	Standard whiteboard luminaire DALI	+ B 1 →
	Tunable White luminaire DALI	+ B 1 →
SWITCH	Conventional wired switch	+ C 1 →
SENSOR	Standard occupancy and light sensor	+ D 1 →
	Casambi Ready air quality sensor	1
	Casambi Ready blind controller	3

Functionality

Calendar and Timer

Scenes

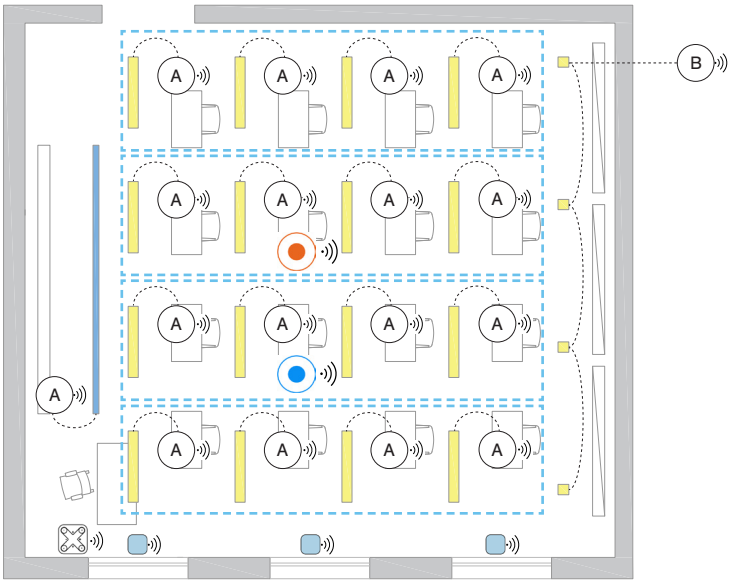
Occupancy Detection

Daylight Harvesting

Human Centric Lighting

1. Classroom - Type B

Group Control



Group control

Standard luminaire

Standard whiteboard luminaire

Standard ON-OFF luminaire

Casambi Ready occupancy and light sensor

Casambi Ready air quality sensor

Casambi Ready blind controller

Casambi Ready driver

Casambi Ready relay

Casambi wireless Xpress switch

Devices

LUMINAIRE	Standard luminaire	+ A 16 →
	Standard whiteboard luminaire	+ A 1 →
	Standard ON-OFF luminaire	+ B 1 →
SWITCH	Casambi wireless Xpress switch	1
SENSOR	Casambi Ready occupancy and light sensor	1
	Casambi Ready air quality sensor	1
	Casambi Ready blind controller	3

Functionality

Calendar and Timer

Scenes

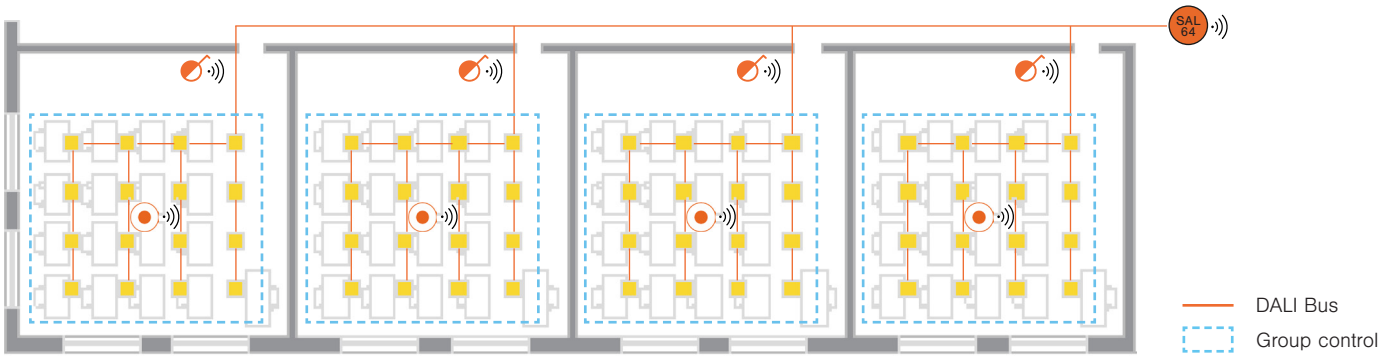
Occupancy Detection

Daylight Harvesting

Human Centric Lighting

1. Classroom - Type C

Group Control



Standard luminaire DALI

Casambi Ready occupancy and light sensor

Casambi Ready switch

Casambi Salvador 64 DALI Controller

The Casambi Salvador Series DALI Controller offer product versions both with and without DALI supply. Depending on the version used, a power supply for the DALI bus might be required.

School refurbishments may happen in stages. Casambi provides full flexibility for future expansions. DALI luminaires in classrooms that are connected to a Salvador, in combination with Casambi Ready switches and sensors provides full scalability. Classrooms, corridors and other spaces can be combined to function as a single Casambi mesh network without additional wiring or hardware. This way all spaces can be controlled both independently and as a single network, providing more advanced functionality and a much better experience for occupants.

Devices

LUMINAIRE	Standard luminaire DALI	+ 1
SWITCH	Casambi Ready switch	4
SENSOR	Casambi Ready occupancy sensor	4
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

Calendar and Timer

Scenes

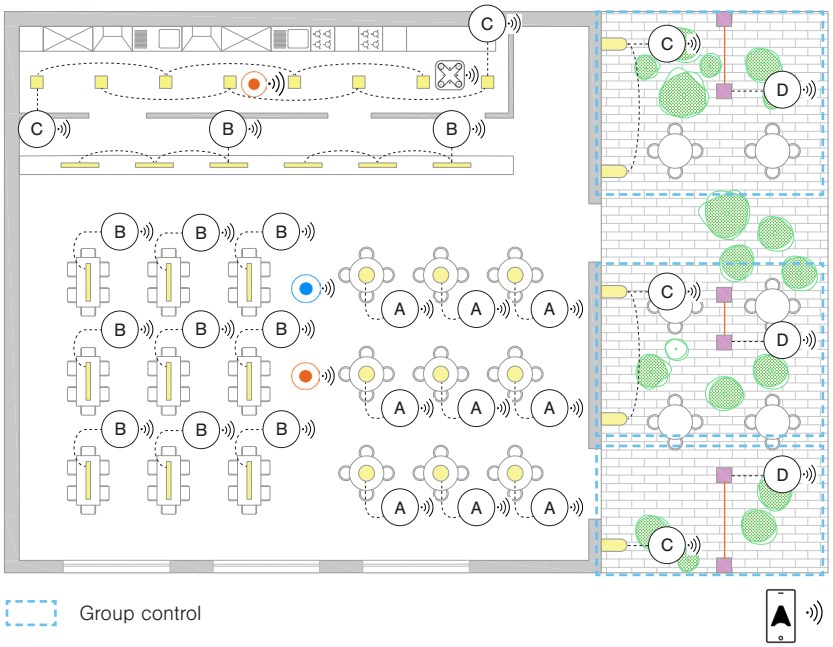
Occupancy Detection

Daylight Harvesting

Human Centric Lighting

2. Canteen

Retrofit



Group control

DALI Bus

Decorative luminaire with dimmable LED lamp

Standard luminaire

Standard ON-OFF luminaire

Standard luminaire DALI

Standard ON-OFF luminaire

Casambi Ready occupancy and light sensor

Casambi Ready air quality sensor

Casambi wireless phasecut dimmer

Casambi Ready driver

Casambi Ready relay

Casambi wireless controller DALI

Casambi wireless Xpress switch

Devices

LUMINAIRE	Decorative luminaire with dimmable LED lamp	+ A 9
	Standard luminaire	+ B 11
	Standard ON-OFF luminaire	+ C 5
	Standard luminaire DALI	+ D 3
SENSOR	Casambi Ready occupancy and light sensor	2
	Casambi Ready air quality sensor	1
SWITCH	Casambi wireless Xpress switch	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

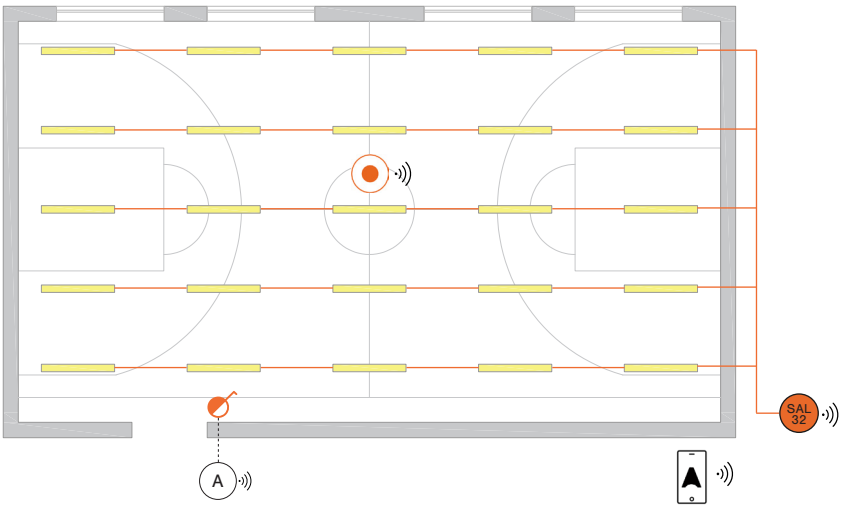
Casambi App on a Smart Mobile Device

Calendar and Timer

Scenes

Occupancy Detection

Daylight Harvesting



Standard luminaire DALI

Casambi Ready occupancy and light sensor

Conventional wired switch

Casambi Ready Input controller

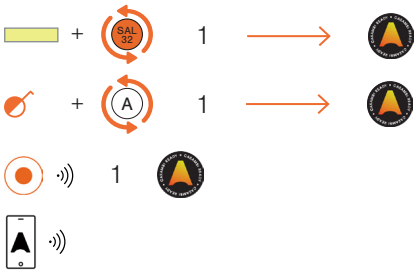
Casambi Salvador 32 DALI Controller

The Casambi Salvador Series DALI Controller offer product versions both with and without DALI supply. Depending on the version used, a power supply for the DALI bus might be required.

DALI bus

Devices

LUMINAIRE	Standard luminaire DALI
SWITCH	Conventional wired switch
SENSOR	Casambi Ready occupancy and light sensor
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*



Functionality

Casambi App on a Smart Mobile Device

Calendar and Timer

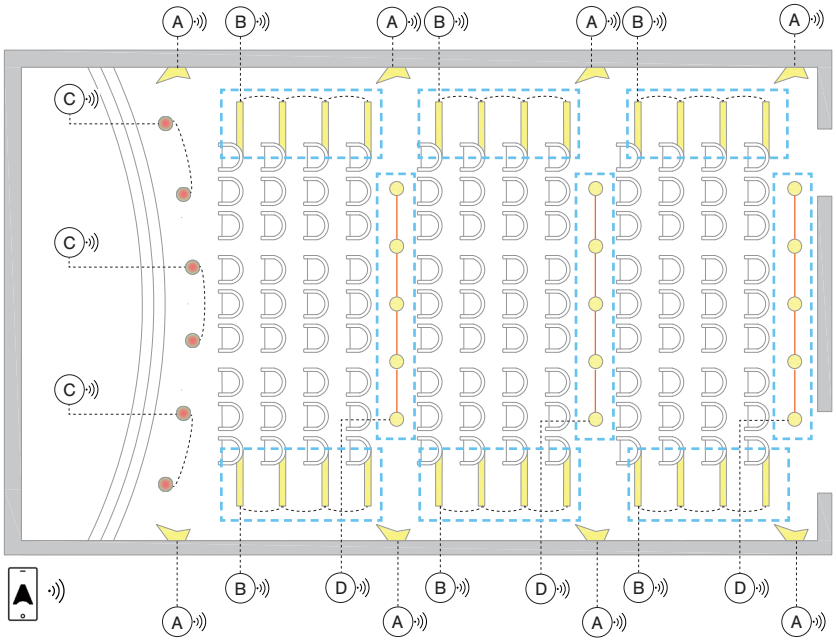
Scenes

Occupancy Detection

Daylight Harvesting

4. Conference Hall

Retrofit



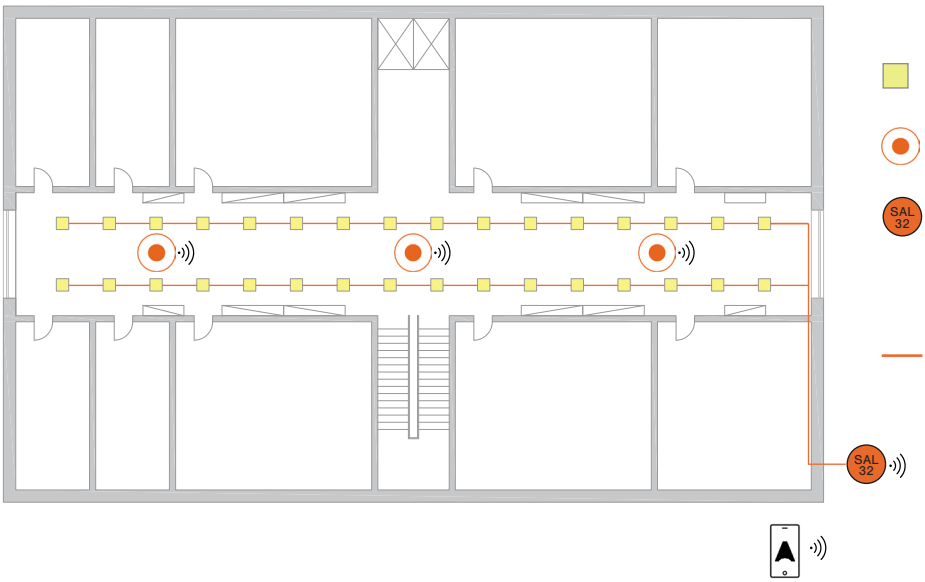
- Standard luminaire
- Standard step luminaire
- RGBW DMX luminaire
- Standard luminaire DALI
- A Casambi Ready driver
- B Casambi Ready relay
- C Casambi wireless DMX controller
- D Casambi wireless controller DALI

Devices

LUMINAIRE	Standard luminaire	+ A 8 →
	Standard step luminaire	+ B 6 →
	RGBW DMX luminaire	+ C 3 →
	Standard luminaire DALI	+ D 3 →
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

- Casambi App on a Smart Mobile Device
- Calendar and Timer
- Scenes



Standard luminaire DALI

Casambi Ready occupancy and light sensor

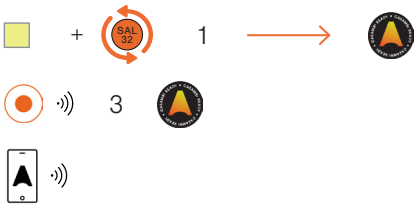
Casambi Salvador 32 DALI Controller

The Casambi Salvador Series DALI Controller offer product versions both with and without DALI supply. Depending on the version used, a power supply for the DALI bus might be required.

DALI bus

Devices

LUMINAIRE	Standard luminaire DALI
SENSOR	Casambi Ready occupancy and light sensor
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*



Functionality

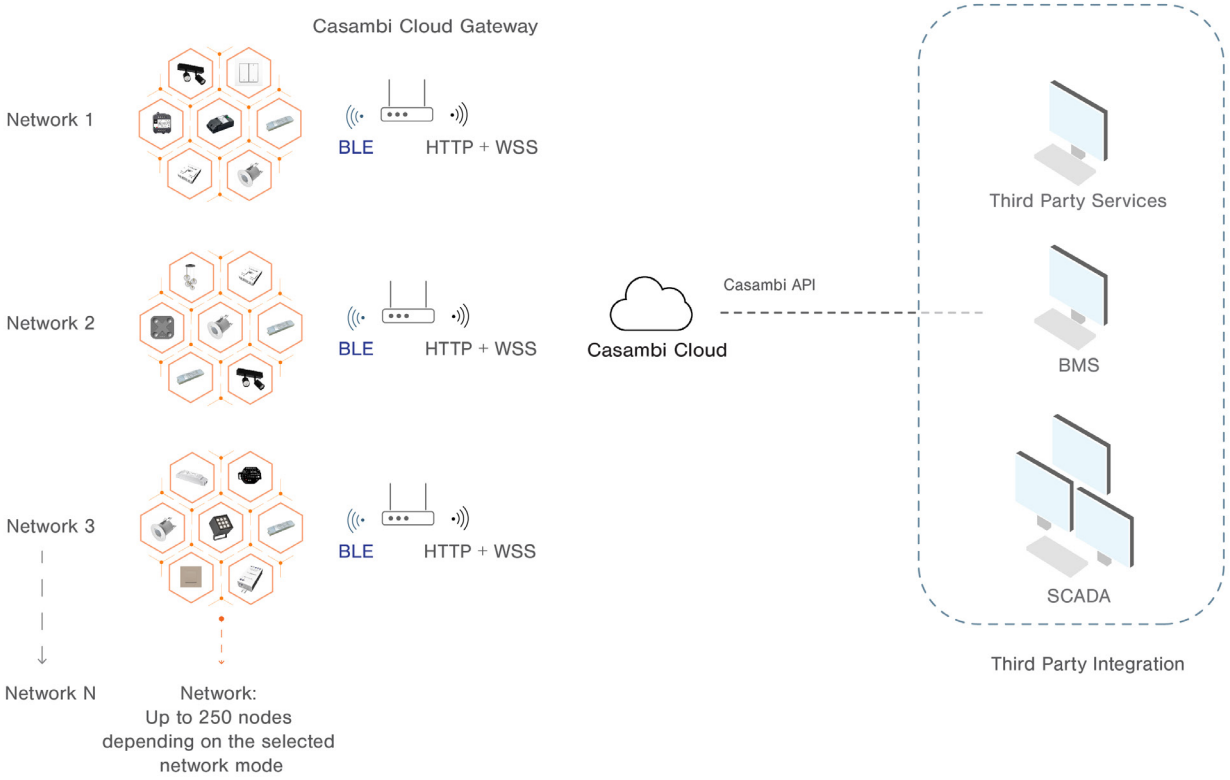
Casambi App on a Smart Mobile Device

Calendar and Timer

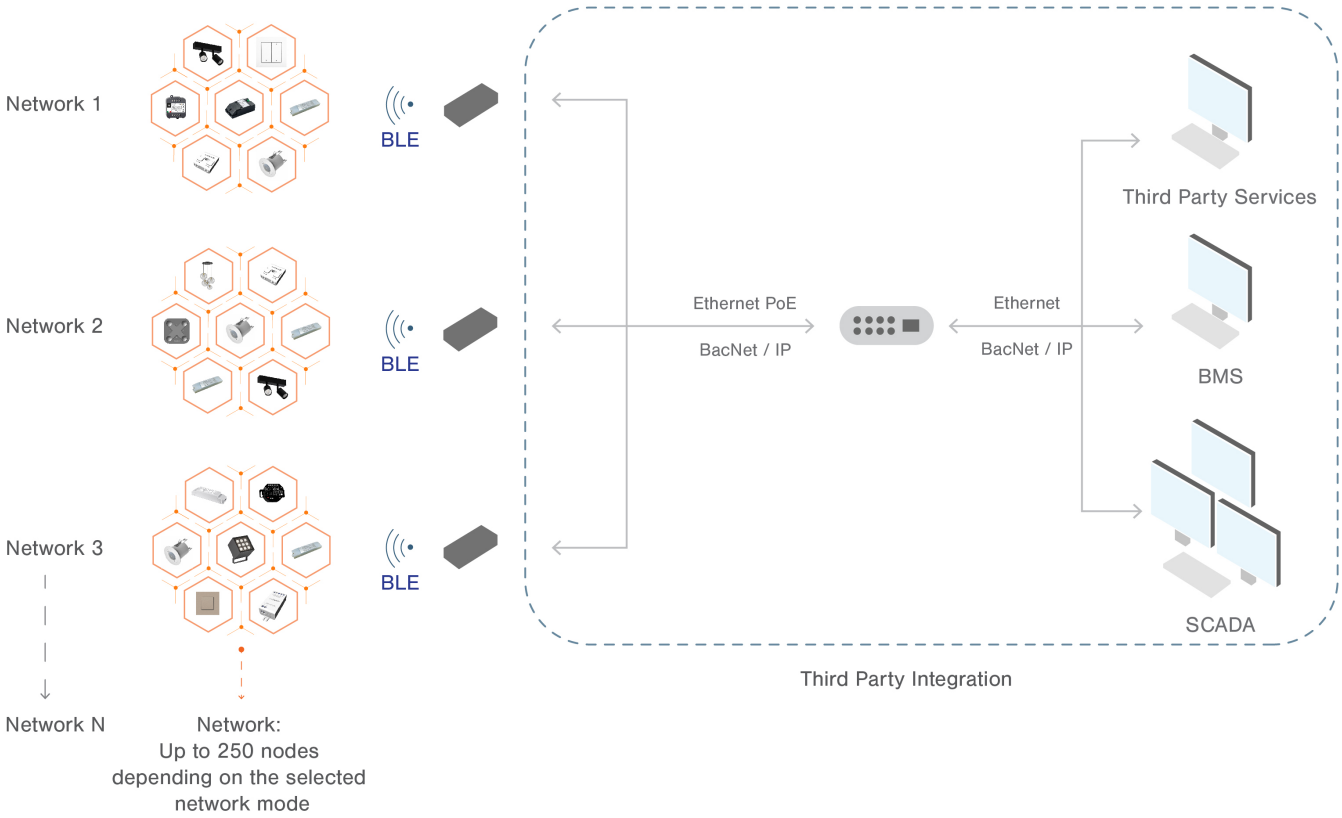
Occupancy Detection

Daylight Harvesting

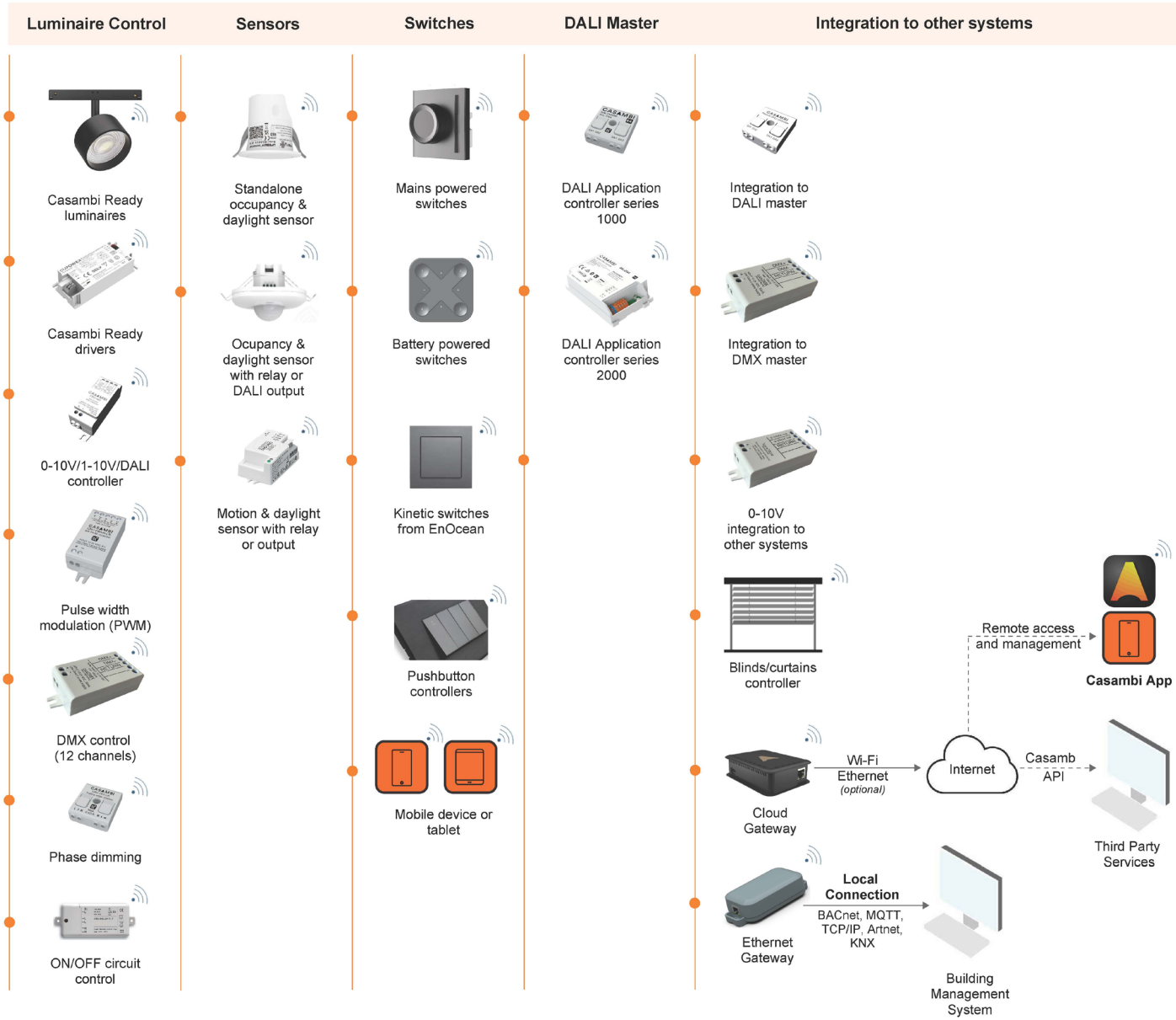
Linking multiple networks with Casambi Cloud Gateway



Linking multiple networks locally

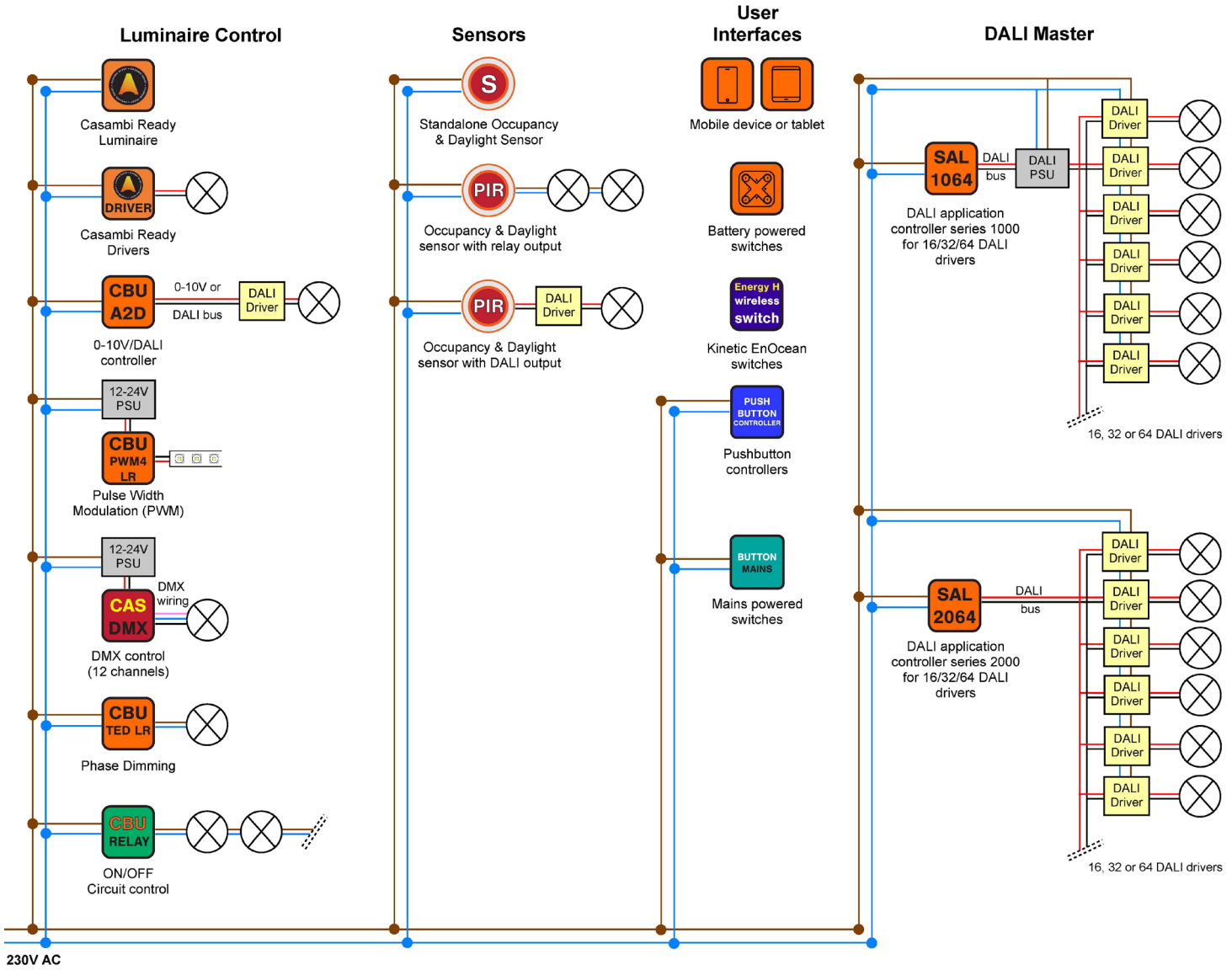
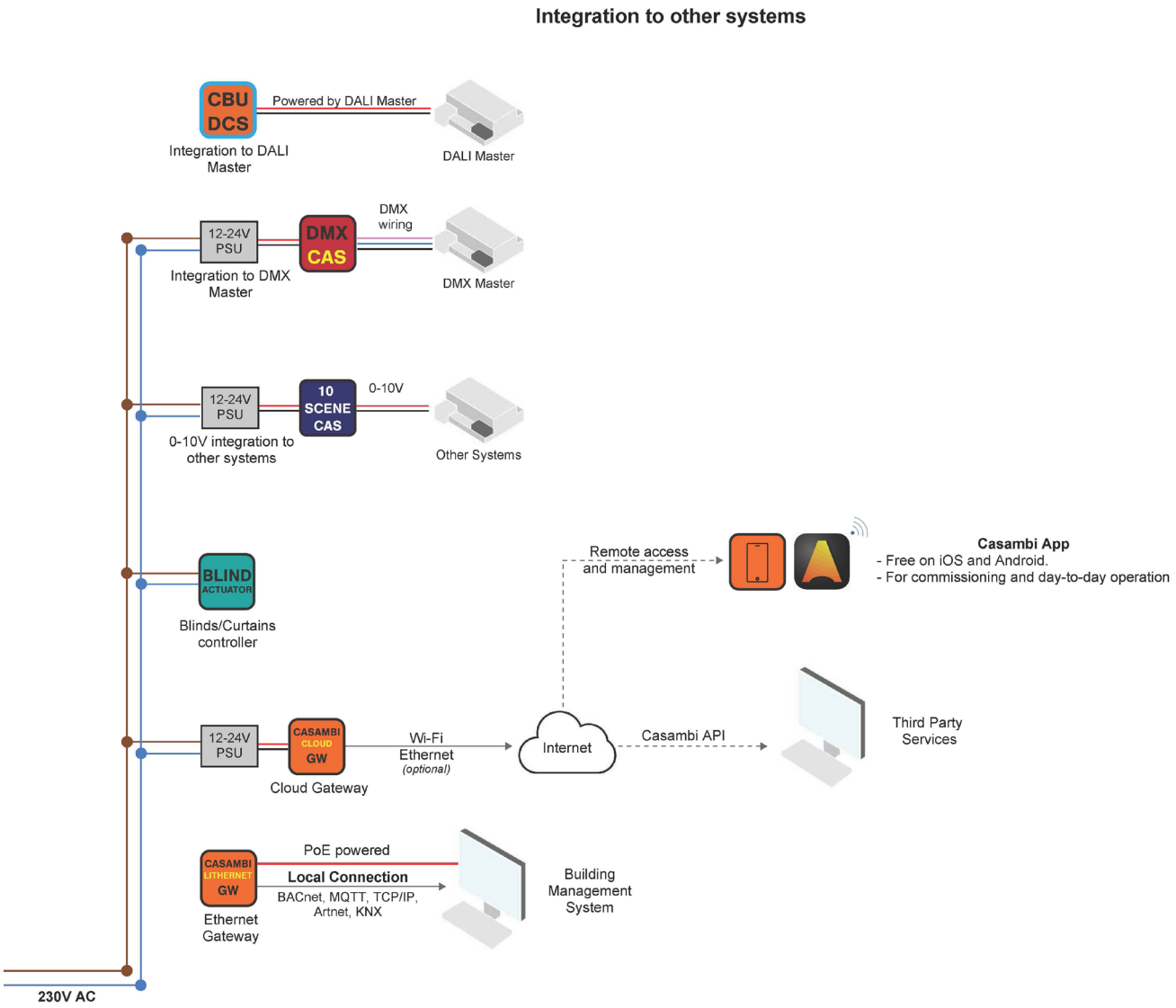


Casambi System Diagram



For more information www.casambi.com/ecosystem

Casambi System Diagram



Casambi System Diagram