VS LIGHTING SOLUTIONS

Blu2Light

Intelligent, wireless light management
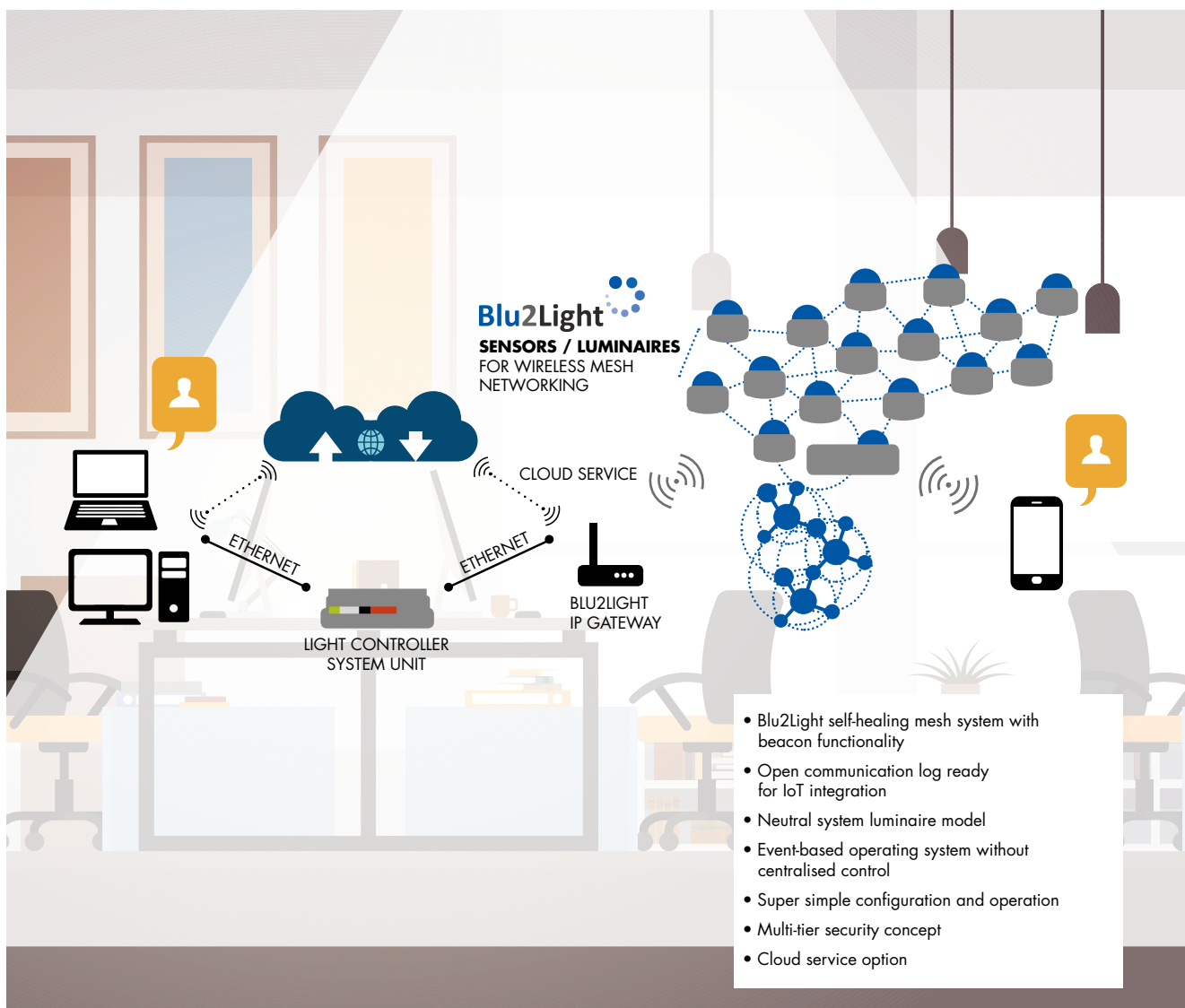
Blu2Light

Intelligent, wireless light management

Existing light points are used to transmit information to consumers in various languages, be it whilst doing the shopping, waiting for a bus or visiting a museum.

No question, the topic of light management is growing in importance in the age of LED. Daylight control and motion detection have become indispensable elements of efficient lighting control systems. It therefore makes sense to exploit the largest platform that currently exists on every smartphone and tablet computer, namely Bluetooth® wireless technology.

Based on Bluetooth® wireless technology, Blu2Light has done just that and thus enables convenient and simple wireless light management using smartphone or tablet apps.

And in order to interlink these ever smarter devices, a mesh system is used based on Bluetooth® wireless technology. This makes it possible to interconnect various components within a WLAN network, in which the individual components function as transmitters and receivers. Adding a gateway can make data available to IoT applications as well.

Blu2Light
SENSORS / LUMINAIRES
FOR WIRELESS MESH
NETWORKING

CLOUD SERVICE

ETHERNET

ETHERNET

BLU2LIGHT
IP GATEWAY

LIGHT CONTROLLER
SYSTEM UNIT

- Blu2Light self-healing mesh system with beacon functionality
- Open communication log ready for IoT integration
- Neutral system luminaire model
- Event-based operating system without centralised control
- Super simple configuration and operation
- Multi-tier security concept
- Cloud service option

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■ BLU2LIGHT –
SECURE LIGHT MANAGEMENT

Based on the security provided by Bluetooth® wireless technology, Blu2Light features a multi-layer security concept to suit the industrial environment in which it will be used. This serves to satisfy the higher security requirements within the field of IoT.

- Individual user and administrator passwords for the app and cloud
- Unique product reference code in form of a QR code
- Encrypted mesh connections (128 bit/AES)
- Encrypted Bluetooth® wireless technology communication (128 bit/AES)

■ BLU2LIGHT –
THE FUTURE OF LIGHT MANAGEMENT

In addition, Blu2Light is designed as an open system that permits other market partners to develop their own Bluetooth® wireless technology devices and use them within the same system. To this end, Vossloh-Schwabe provides access to the communication protocols.

Commissioning is then simply carried out using a tablet with a graphic user interface (Blue2Light app). The Blu2Light operating system is also made with the future in mind: it is already possible to address commonly available DALI ballasts within the Blu2Light system or even to operate just luminaires with Bluetooth® wireless technology (ballasts or LED modules with integrated Bluetooth® wireless technology). DMX and 1–10 V communication is equally supported by Blu2Light.

Colour Control
In addition to the usual light management functions, Blu2Light also provides numerous colour control options for Tuneable White, RGB and RGBW applications. All in all, there are 6 colour control channels with which more complex requirements can also be satisfied.

Beaconing
Bluetooth® wireless technology lets additional messages be sent and received using so-called beacons, which is also an option for Blu2Light systems. For instance, data relating to sales promotion measures or locations can be sent to consumer smartphones. And conversely, Blu2Light devices can send information to the Bluetooth® wireless technology infrastructure, which is then termed asset tracking.

Cloud Service
As Blu2Light is an open system, it is also an option to integrate Bluetooth® wireless technology mesh devices into so-called cloud services, also those offered by third-party providers. Naturally, Blu2Light customers can also create their own cloud solution. Among other things, such a solution could incorporate heat maps/sensor evaluations, extended graphic operation and commissioning options, asset tracking, security and cleaning management or extended user management options.

Blu2Light – Smart Lighting

Blu2Light offers an almost endless array of light management options.
We'll be happy to provide advice on your Blu2Light idea or on planning your Blu2Light system.

**Office** – light temperatures / daylight control

Industry – warehouse with motion detection

Restaurant/ Lounge – colour control to optimise ambience

Shop – beacons that transmit information to consumers

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Blu2Light – System Overview

App (iOS/Android)		
Built-in devices	Blu2Light Connect ME Ref. No. 186768 	Blu2Light MultiSensor XS Ref. No. 186706 	Blu2Light MultiSensor XL Ref. No. 186800
Switches	Blu2Light Connect Ref. No. 186731 	Blu2Light Switch S4 Ref. No. 186773 	
Power supply for existing DALI applications to make them ready for Blu2Light	Blu2Light Power Supply For up to 10 DALI drivers Ref. No. 186693 	Extender 64 For up to 64 DALI drivers Ref. No. 186667 	

For luminaires that are already in operation, you can use the light controllers for luminaire installation, the Blu2Light Connect ME (without light or motion detection), the XS MultiSensor for ceiling heights of up to 2.5 m or the XL MultiSensor for ceiling heights up to 9 m.

As the LED drivers currently available on the market do not feature a DALI bus power supply, luminaires will have to be fitted with an additional Blu2Light power supply or, for larger applications, an Extender 64.

For new luminaire projects, you will then only need the Active DALI LED driver with an integrated power supply and the Light Controller Connect ME or a MultiSensor, depending on whether light and motion detection is required.

Active DALI LED Driver

Blu2Light MultiSensor XS
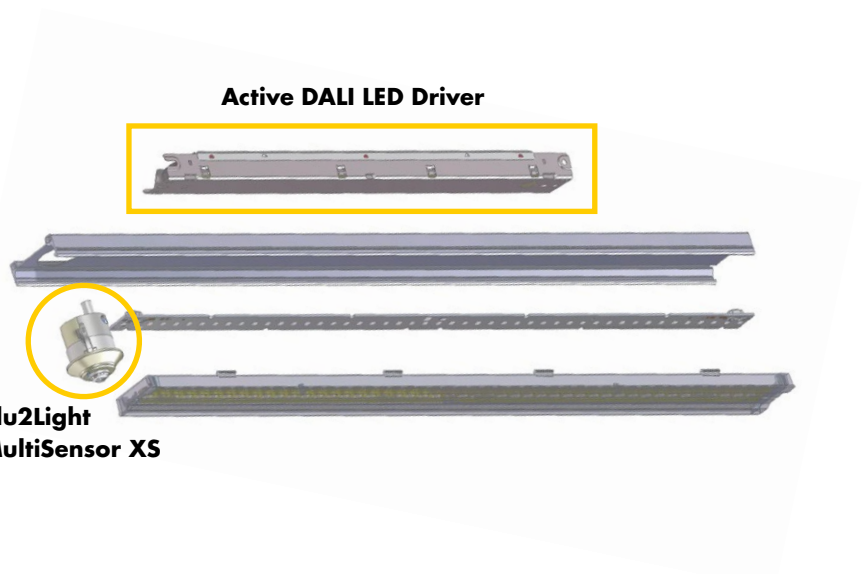
THE FUTURE OF LIGHT: Blu2Light

■ THE FUTURE OF LIGHT

- Completely open communication protocol.
- Blu2Light mesh systems no longer require centralised control.
- The Blu2Light system luminaire is a neutral platform that permits integration of all known systems such as DALI, DMX, 1–10 V and in addition enables new variants such as Bluetooth® wireless technology to be included directly within the control gear or on the LED's PCB.
- Blu2Light products are directly integrated into the luminaire.
- The intelligence of the classic DALI light controller is transferred to a sensor that detects daylight and motion at the same time.
- Super simple and user-friendly configuration and operation is enabled by an app on a smartphone or tablet.
- Further functions available via cloud services.

■ BLU2LIGHT FUNCTIONS

- Up to 64 physical addresses (DALI) per Bluetooth® wireless technology device.
- Up to 16 system luminaires (groups) per Bluetooth® wireless technology device.
- Up to 64 light scenes per Blu2Light mesh system.
- Up to 64 sequences per Bluetooth® wireless technology device.
- Up to 32 local timers per Bluetooth® wireless technology device.
- Up to 250 events can be configured per Bluetooth® wireless technology device.
- Daylight and motion detection integrated (only devices with sensors).
- Super-high performance wireless mesh system.
- Colour control and dimming for all common standards already integrated.
- The beacon function automatically features as part of every Bluetooth® wireless technology component.
- Security functions to protect the system.

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■ Blu2Light AT A GLANCE

- Open standard means that the technology is accessible for all market partners for further development and use.
- Needs no additional router.
- Improved network security ensures optimum protection against illegal access both prior to and during luminaire use (luminaire hijacking).
- The 4-step security concept:
  - Iindividual user and administrator passwords for the app and cloud services
  - unique product reference code in the form of a QR code
  - encrypted mesh connections (128 bit/AES)
- Encrypted Bluetooth® wireless technology communication (128 bit/AES).
- Immediate compatibility with every Bluetooth® wireless technology module with a Nordic nRF52 chipset (currently based on BT 4.2). Adaptations to other manufacturers are possible.
- **Self-healing, high-performance mesh network thanks to using all 40 Bluetooth® wireless technology channels for data transfer and distribution.**
- An event-based operating system that lets you define 250 incoming and outgoing events (switching, dimming, colour, timer, and much more) per Bluetooth® wireless technology device.
- All Blu2Light components can function as a standalone system, can form a Bluetooth® wireless technology mesh network with several hundred devices and be integrated into building management systems via the IoT structure.
- The entire system is controlled and commissioned via the Blu2Light (for configuration) and Touch4Light (for operation) iOS/Android apps. LiNA (Lighting innovation app) provides the user with assistance throughout configuration.
- When combining Blu2Light components with drivers featuring already integrated Active DALI technology (e.g. VS Active DALI LED driver) no additional power supply is required for the sensor.
- Blu2Light devices fitted with a DALI bus can be combined with any DALI driver via the DALI standard.
- Integration of EnOcean switches/keys with Bluetooth® wireless technology is possible (PTM 215B).
- OTA update of the system possible (Bluetooth® wireless technology mesh and operating system)
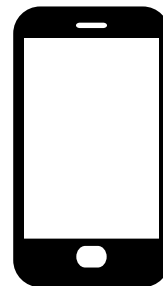
Whenever an electric light goes on around the world, Vossloh-Schwabe is likely to have made a key contribution to ensuring that everything works at the flick of a switch.

Headquartered in Germany, Vossloh-Schwabe counts as a technology leader within the lighting sector. Top-quality, high-performance products form the basis of the company's success.

Vossloh-Schwabe's extensive product portfolio covers all lighting components: LED systems with matching control gear units, highly efficient optical systems, state-of-the-art control systems (Blu2Light and LiCS) as well as electronic and magnetic ballasts and lampholders.

The company's future is Smart Lighting.

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