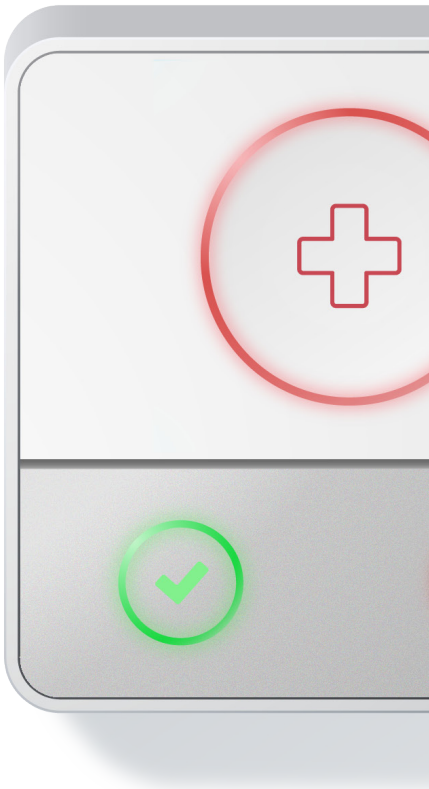
CLB
TECHNOLOGY WITH CARE

Care Solutions



www.clb.nl/uk

Table of Content

Is it really wise to rely on yesterday's products to meet today's and tomorrow's demands?

3 Care management challenges

4 Acoustic Monitoring

6 Nurse Call

8 Alarm Distribution Apps

10 Room modules

14 Management software

16 System setup

17 Configurator

18 Configurations

20 Testimonials

22 About CLB

Care management challenges

The world of care has gone through major changes in recent years, and this is expected to continue for the foreseeable future. Residents and their loved ones are expecting and demanding more from services. Quality standards are becoming stricter. The pressure to increase efficiency and to reduce costs is increasing. The need for supporting systems to be tailored to individual needs and situations is growing. Achieving the right balance between respecting residents' privacy and fulfilling care providers' responsibilities is becoming trickier every day.

Dynamic needs

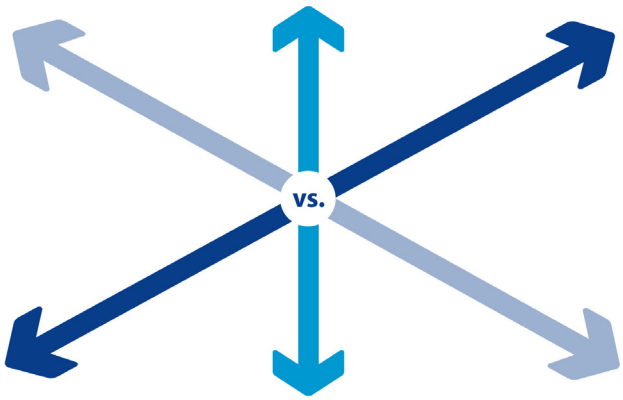
Tailored to individual
Adjusted to current need

Mitigate risk

Liability
Employee responsibility

Improve care

Higher demands
Increased Quality
Regulators



Reduce costs

Budgets
Ageing

Respect privacy

Higher expectations
Tighter legislation

Static and closed systems

Little innovation from vendors
Strict and lagging regulations (MDD, NHSxyz, VDE 0834)

At CLB, we are well aware of the challenges care organisations are facing. Our work is therefore focussed on easing these, day by day developing solutions that are smarter, more flexible and take the future into consideration. Solutions that revolve around residents and enable carers to tangibly improve services. All developed in close cooperation with our customers, with one single goal in mind: to deliver outstanding care to those who need it.

Acoustic Monitoring

Better nights, better days

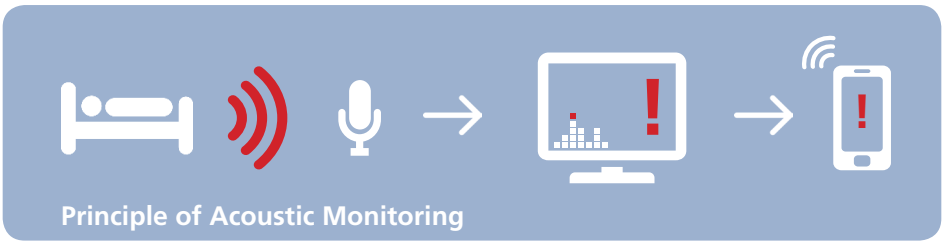
Beneficial to residents

Better sleep cycles
Residents can sleep better through the night, due to lack of disturbance from staff periodically checking in on them.

Improved privacy
Avoidance of unnecessary routine in-room checks means less invasion of residents' privacy.

Timely Care
Everybody is monitored all the time. Any issues can be picked up as and when they happen, and staff are immediately alerted.

Better attention
Fewer demands on staff means they are better able to focus on attending to individual residents' needs.



Principle of Acoustic Monitoring

For a detailed explanation of Acoustic Monitoring please see our animation on **www.clb.nl/uk/animation**

Acoustic monitoring keeps continuous watch on patients without interrupting their sleep. Leaving your people free to solve problems instead of looking for them.

Beneficial to your organisation

Faster response
Instead of patrolling the building, staff maintain a central position which puts them closer, on average, to all rooms. Patients in need of attention can therefore be reached faster.

Better level of care
Because staff no longer have to go looking for problems, they have more time to devote to solving them. This results in more attentive patient care

Increase your occupancy rate
A more efficient way of delivering care allows more efficient deployment of rooms and beds.

Better information
Resident information is automatically displayed with any alert received from their room and, if available, a video connection can be made. Alert-triggering events can be replayed if required.

Faster return on investment
Increased staff efficiency results in cost savings. The system thereby pays for itself within a short period of time, while continuing to deliver the benefits long after.

Improve your CQC rating
Improving your care quality is not only beneficial for your residents and staff. It also helps to increase your Care Quality Commission rating

Respecting privacy

First and foremost, privacy is improved by decreasing unnecessary interruptions. Because in-room indicators (visual and/or audio) can let patients know when they are being monitored, no privacy issues should be raised. Clients and their loved ones welcome use of this system as a win-win to achieve more privacy and providing better care at the same time.

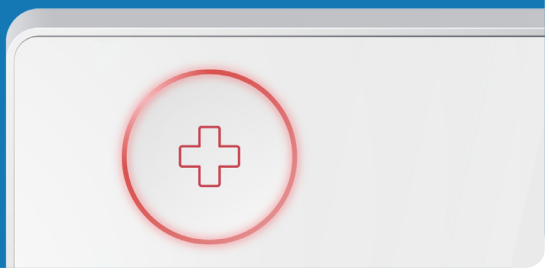
Stays alert all night

CLB Acoustic Monitoring non-intrusively listens to residents during the night and triggers an alert when the sound level in a room exceeds individually set thresholds. This enables staff to swiftly respond to residents in need of care. Continuous monitoring decreases the need for routine in-room checks, so peacefully sleeping residents are not disturbed and staff are free to focus on those whose distress has triggered an alert. The system can also be used to facilitate more intensive monitoring of patients needing a higher level of care.

Acoustic monitoring keeps continuous watch on patients without interrupting their sleep. Leaving you free to solve problems instead of looking for them.

Nurse Call

Enhancing care with state-of-the-art technology



User friendly
Thoughtful design makes Nurse Call modules easier to use.

Fail safe
Any system or module malfunctions are automatically detected and immediately reported.

Configurable lay-out
Button and Nurse Call device functionality can be configured to custom-fit every care situation.

Reassurance
LED lights on modules provide reassuring indication that help is on the way.

Multiple call levels
CLB's Nurse Call modules enable users to make calls for different purposes via a single device.

Peripherals
CLB's Nurse Call system is compatible with a wide range of peripherals which facilitate expansion of functionalities.

Flexible
The wide range of Nurse Call modules facilitates flexibility in deploying the Nurse Call system for many different care situations. CLB's Configurator software makes it very easy to add or remove modules from the module string, providing the flexibility to adapt to changing care requirements.

Design
CLB's Nurse Call system can be used in various care environments, including hospitals. Contemporary module design means they easily blend in with modern healthcare surroundings.

All of the Nurse Call modules are designed to be easy to use and easy to understand. The backlit buttons show whether or not a functionality is available or if a call has been made. A light sensor automatically adjusts the brightness of the LEDs according to the ambient lighting conditions, to minimise night-time disturbance.

Connectivity
CLB's Nurse Call system is part of the CLB system which enables easy expansion to other functionalities such as Acoustic Monitoring, CLB's Event Handler, Mobile apps and connectivity to other (medical) devices.

State-of-the-art Technology

CLB's C-Series Nurse Call system is a state-of-the-art IP-based Nurse Call and Acoustic Monitoring system for use in both hospitals and care homes. By combining decades of experience in healthcare communication with the latest technology, our systems help caregivers focus attention where it's most needed.

CLB products are developed and manufactured according to the standards applicable for medical devices. Ease of use, ease of installation, flexibility, expandability and reliability are all in the systems' DNA, making it the solution of choice for many care organisations.

Features

- Complies with relevant standards for medical devices
- Fully customisable
- Expandable with other functions such as Acoustic Monitoring, Event Handler and Mobile App.
- Use of hygienic materials and design
- Call prioritisation
- Easy updating of software

Alarm Distribution Apps

Receive alarms while on the move

Portable notification

The CLB apps make it possible for staff to receive alarm or event notifications en route. Even when switching between inside and outside buildings (WiFi / GSM).

Location information

Information about positions of mobile devices can be shared. Maps to locate other devices can be displayed

Messenger Apps

CLB has leveraged decades of experience in the field of critical communication systems to develop its Messenger apps. CLB's system verifies that notifications have been delivered and if they are being handled in timely fashion. If not, the relevant notification is automatically forwarded to other users. CLB's messenger complies with the requirements specified by NEN 60601-1-8 "Distributed Alarm System" for medical application. Development was guided by the ISO 13485:2007 quality management system.

License types

There are three CLB Messenger types available; Medical Messenger, Smart Messenger and Emergency Messenger.
Medical Messenger focusses on handling of incoming notifications only.
Smart Messenger allows the care provider to have audio and/or video connections with devices that are part of systems such as Acoustic Monitoring devices and Intercoms.
Emergency Messenger has the ability to act as a personal alarm device in case the care provider is in need of assistance. The device's position can be broadcast to make it easy for others to locate the position of the emergency.
The Medical and Emergency Messengers can be used separately or combined. Smart Messenger must be combined with Medical Messenger because its functionalities are add-ons for handling notifications.

Notifications

Incoming notifications trigger the app to display prompts over other applications. If the device's screen is disabled at the time of incoming notification, a custom lock screen is shown with details of the notification in order to prevent unintended notification handling. Users are thereby instantly informed of new notifications which can be handled without any unnecessary navigation effort.

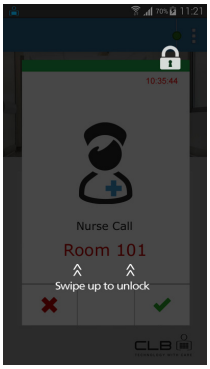
Prioritising

Up to six priority levels with different colours can be used to prioritise notification types. Each notification type has a different icon and can be set to have a different ringtone, sound level, vibration type and repetition.

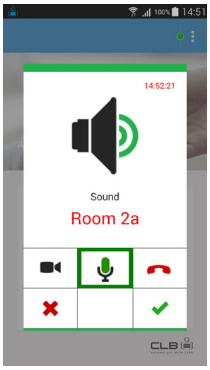
	Receive Receive notifications	**Handle** Accept & Decline	**Audio** Audio connection	**Video** Video connection	**Control** Control doors & devices	**SA** Staff personal alarm	**Position** Location information
Medical Messenger	✓	✓					
Smart Messenger			✓	✓	✓		
Emergency Messenger						✓	✓

The CLB Messenger app enables users to connect to CLB's Unicare ® system. Staff are thereby able to accept and reject calls while on the move.

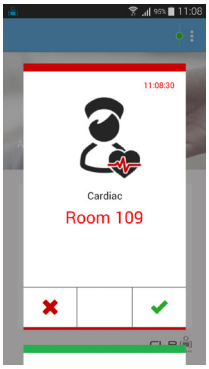
Dashboard
Provides access to received messages and the settings menu.



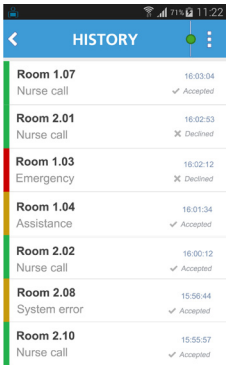
Lock screen
Allows messages to be seen through the lock, while preventing unintended handling.



Notification
Decline & Accept buttons
Video toggle
Mic on/off
Close audio connection



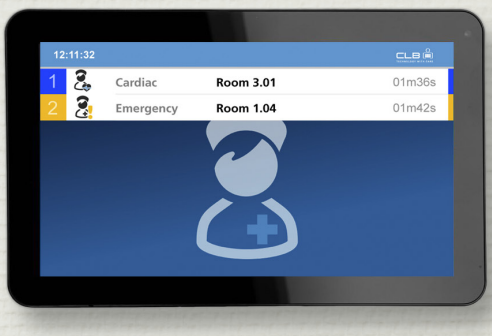
Information
Priority index by color
Notification Icon + name
Timestamp
Location
Next notification



History
List of notifications including timestamp, priority colour and action taken

Nurse Call Display

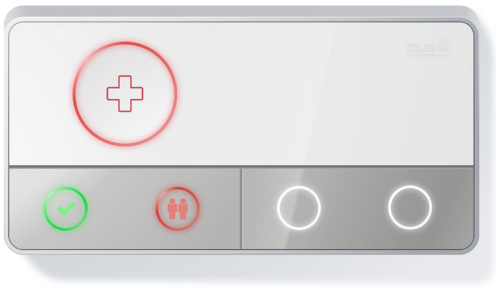
The Nurse Call Display has been developed to show notifications managed by the Unicare system, such as nurse calls, medical alarms and system errors. This gives the user an overview of all active notifications per department or ward on a single screen. Nurse Call Display is only intended to show unhandled notifications.



Nurse Call Display example

Room modules

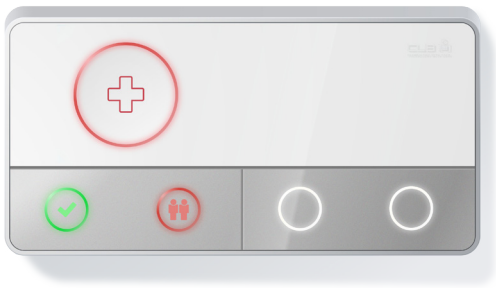
C1600
Acoustic Monitoring + Nurse Call Module



The C1600 Nurse Call & Acoustic Monitoring module brings these two functionalities together, in a single user-friendly module.

Features:

C2600
Nurse Call Module



The C2600 is a Nurse Call module with multiple, configurable, functionalities.

Features:

C161x
Acoustic Monitoring Unit

The C1610 is a non-intrusive Acoustic Monitoring Unit.

Features:

C261x
Nurse Call Unit

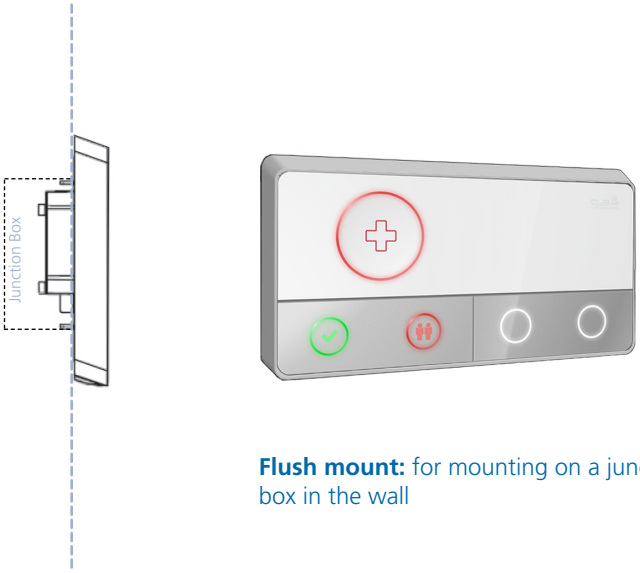
The C2610 is a Nurse Call Module, including 2 I/O ports at the back.

Features:

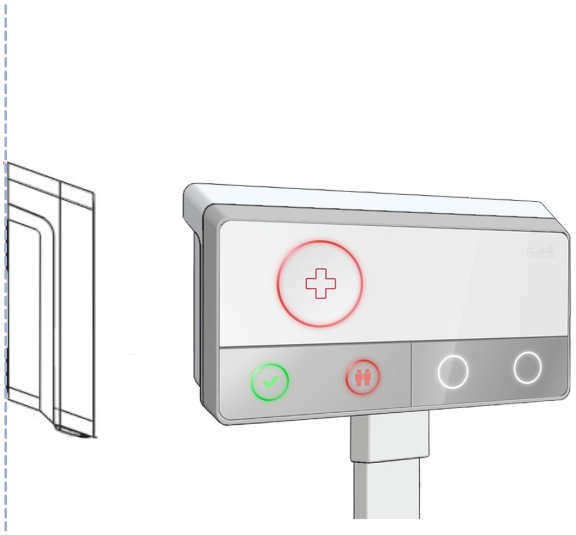
Design

The module's non-intrusive design embodies over 35 years' experience in the healthcare industry. The Nurse Call element has one large button for easy patient use. The bottom row of smaller buttons are for staff or universal use. Speaker and microphone are discretely incorporated, while the only-when-relevant backlit buttons keep the look simple and subtle. The tilted shape makes the device anti-ligature.

Mounting



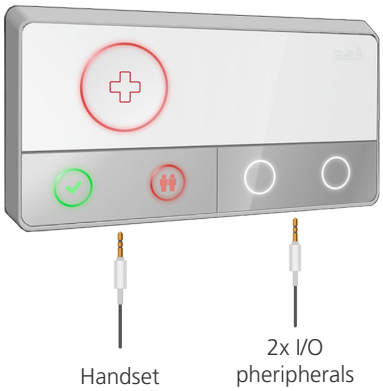
Flush mount: for mounting on a junction box in the wall



Surface mount: for mounting directly on the wall. Conduit reducers can be connected from all sides to guide cable trays.

Features

- Acoustic Monitoring
- Nurse Call
- Customisable universal buttons
- I/O ports:
  - 2x Front (jack) (C1600/C2600 only)
  - 2x Back (4 pin)
- Handset connectivity
- LED to indicate activation of live audio connection or short circuit of peripherals.
- Light sensitivty sensor to adjust brightness to ambient light conditions
- Mini Jack port to connect I/O peripherals.



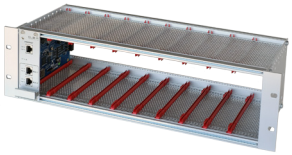
Room modules

C2300
Over door light

CLB's C2300 over door light provides instant status information for each room by illuminating in a different colour: green, yellow, blue or red.

C810x
Local controller

This state-of-the-art local controller is at the heart of CLB's systems. Characterised by speed and reliability, this controller is particularly suitable for highly demanding environments, such as care and cure institutes.



Rack-mount
CLB's C810x-r is specially made to be used in a 19" rack. In this way 14 controllers can be placed in one rack, which allows space-efficient handling.

Hardware housing
CLB's C810x controller is also available as a single unit. Its robust and durable housing allows installation on-site and in highly demanding environments.

P2x8x
Handset

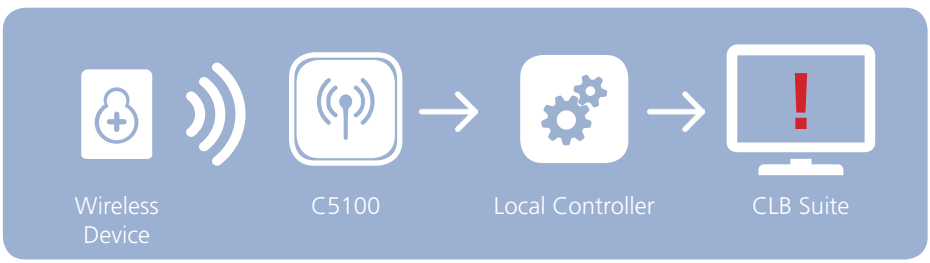
The CLB P2x8x handset has a Nurse Call button and built-in torch.

P2500
Double pull cord

CLB's P2500 pull cord can be used to make a nurse call in circumstances where a wall mounted button is difficult to reach.

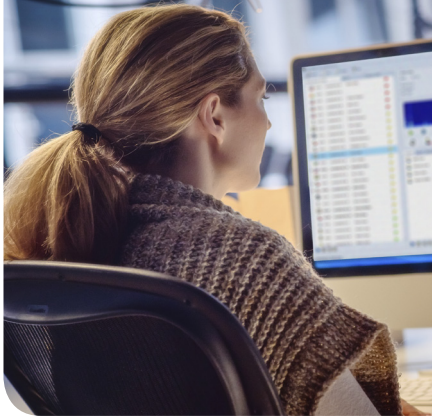
C5100
Wireless module

The C5100 module provides an interface to wireless devices such as a personal button, pendant or wristband. All of which relay reassuring feedback to the service user that the alarm has been picked up. The module can also interface with wireless sensors such as a PIR or a wireless door monitor contact. A special purpose IO module allows traditionally wired sensors such as bedmats to be wirelessly connected to the CLB system. All wireless devices have low-battery monitoring and a "heartbeat" to ensure no alarms are lost, thereby eliminating the need for preventive battery exchange.



Management software

The Alarm and Event Handler



Overview

The Event Handler makes it easy to keep watch over a large number of rooms and clients.

Central information point

The Event Handler can display all activities from an entire system and be used a central point for notification handling.

Control

Keeping watch over a large number of residents with differing care needs can be a challenging task, especially when multiple actions need to be taken during a short period of time. CLB's Alarm and Event Handler makes it easy to stay on top of the situation and prioritise action by presenting alerts in a clear, intuitive and suitably detailed way.

User Friendly

Designed with a focus on user-friendliness, the CLB Alarm and Event Handler receives alerts as incidents happen and provides at-a-glance information tagged with priority-identifying icons, so operators immediately know where to focus attention. A single mouse click on the item connects the operator with the room and displays status and all relevant patient data, as well as the available in-room monitoring devices.

Notes

Operators can enter client-specific notes, and all notes made during a shift can be compiled into a single handover document for the next shift. A reporting tool provides management with per-shift performance data.

Managing locations

Incoming alarms from any particular location, ward or room can be relayed to specific monitors so operators can each manage their own set of clients. Settings can be adjusted to meet residents' individual needs and to control which locations each operator has connection with.

1. Incoming calls
2. Key patient data
3. Profile settings
4. Audio control
5. Playlist
6. Video
7. Action buttons

The Alarm and Event Handler neatly brings together all aspects of care centre functionality, providing an efficient pathway between resident needs and appropriate action being taken.

Personal approach

The Event Handler allows creation of per-resident personalised settings, to fit the needs of every individual. The profile overview allows setting of which notification types are forwarded, and whether or not sound and/or video connection is enabled per notification type.

In-room connection

If required, an Auto Connect on Call facility can be activated to automatically connect the operator to the room as an alert arrives. Patients needing extra attention can also be included in a cyclic monitoring queue, which allows the operator to listen in to selected rooms in sequence. A hands-free mode means this can be set to run without additional user interaction.

Client | Profile | Audio

Night scenario for Emily Foster

Notification Type Name	Report	State	Delay	Priority	Allow audio on notificat...	Allow video on notificat...	Sound
Nursecall	✓				✓		
Door 1	✓		1.0s				
Door 2	✓	⚠	1.0s		✓		
Sound	✓	⚠			✓		
Bed	✓	⚠	2.0s		✓		
Window	✓				✓		
Epilepsy	✓				✓		
Special	✓				✓		
Door bell	✓	⚠			✓	✓	
Movement	✓				✓		

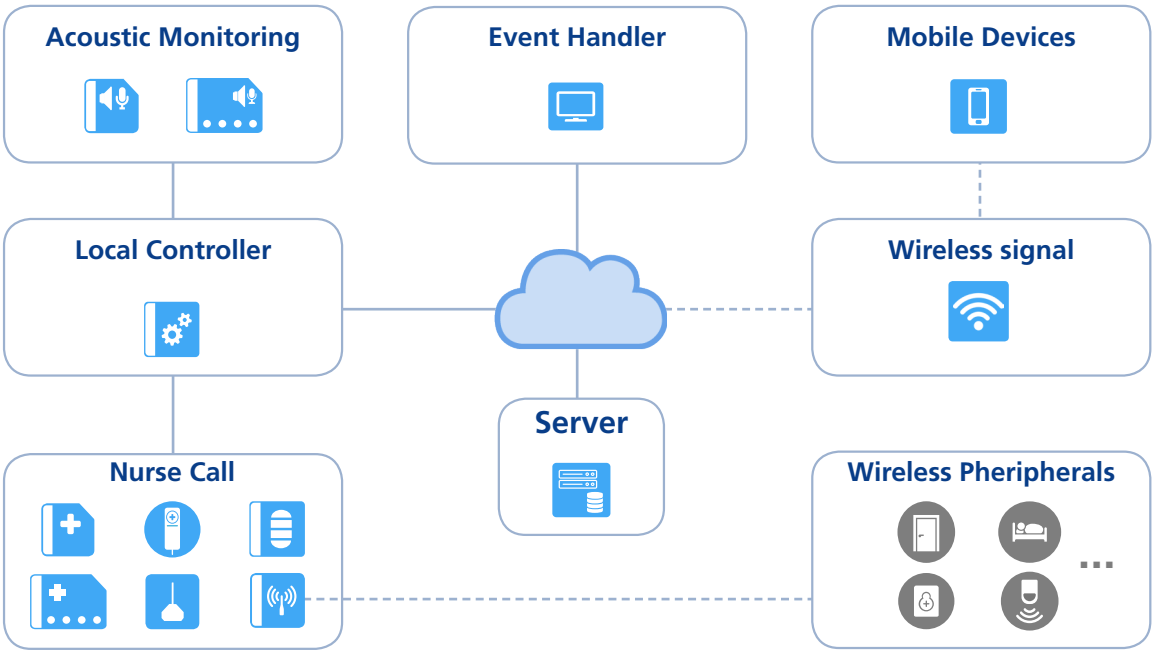
Profile overview per notification Type

Features

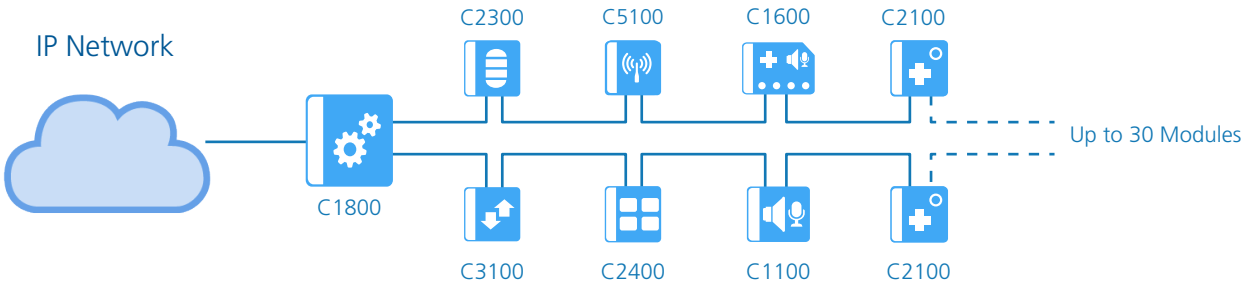
- Manual control or Auto Connect on Call
- Cyclic monitoring queue
- Easy to manage which sensory devices are activated per patient during a shift
- Easy to manage alarm properties, with adjustable priority per sensor per patient
- Adjustable sensitivity levels
- Easy to manage alarm paths
- Event recording: Listen back to the exact time which triggered the alarm to go off (optional)
- Integrated display of video feeds
- Possible integration of 3rd party alarms and sensors
- Reporting tool, search tool and log files
- Client data
- Personal and medical data
- Note pad to log

System setup

Overview



System Set-up overview. See page 19 for legenda of icons.



Up to 30 Room-modules can be connected to a single C8100 controller.

The C8100 controller is at the heart of CLB's systems. It can either be placed centrally or at any position in the building. Characterised by speed and reliability, this controller is particularly suitable for highly demanding environments such as care and cure institutes. PoE(+) power supply reduces installation and wiring costs.

Configurator

Easily set-up the system

Configurator

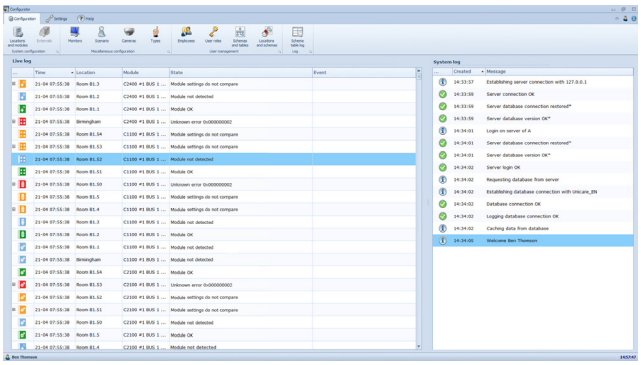
CLB's Configurator is developed to set up, control and maintain the entire CLB system while keeping a clear overview.

Location management

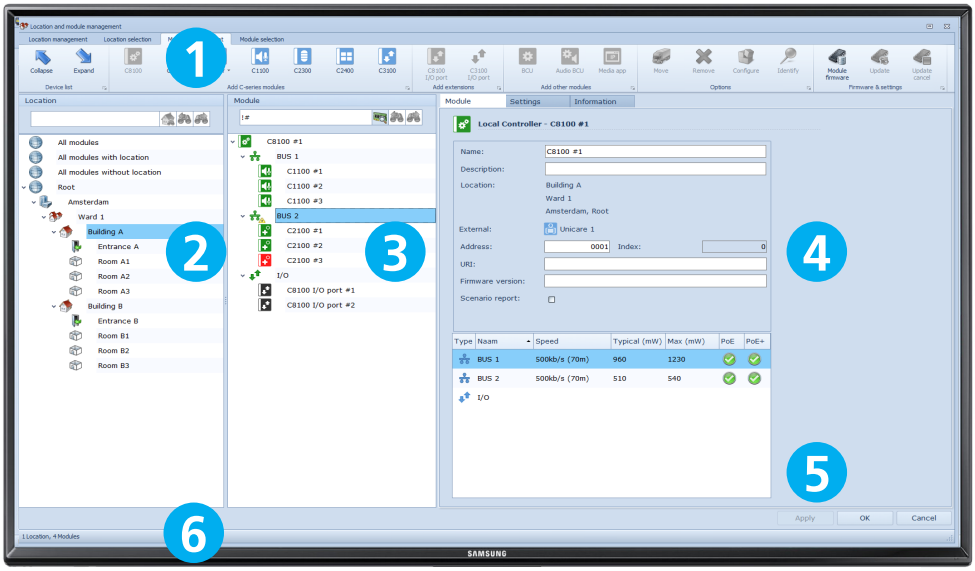
The Configurator enables set up of location and module trees. Locations can be configured on various levels, from area level (e.g. country, province) to a specific position within a room. Modules can be allocated to locations and all module settings can be fully managed with one single Configurator.

User management

All user settings and user rights can be defined with the Configurator. The system administrator has the ability to designate functionalities to certain users or groups.



Example of live log screen



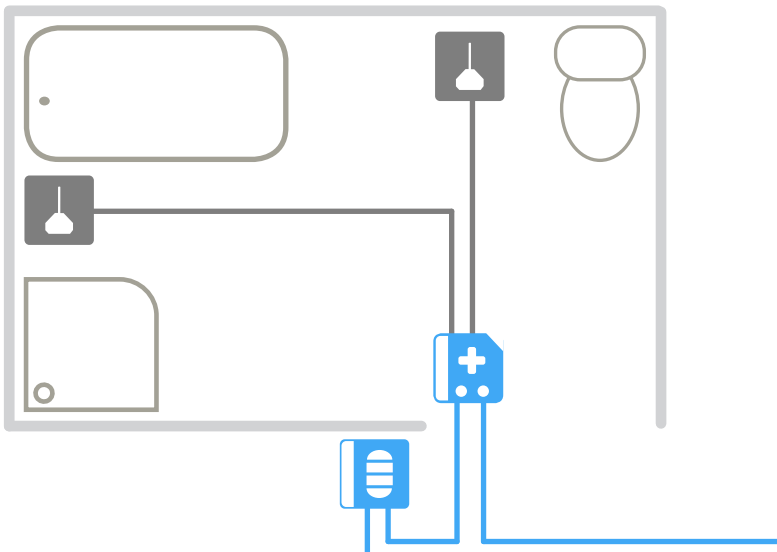
Device management screen

1. Menu bar
2. Locations
3. Devices
4. Device settings
5. Communication bus and I/O information
6. Status bar

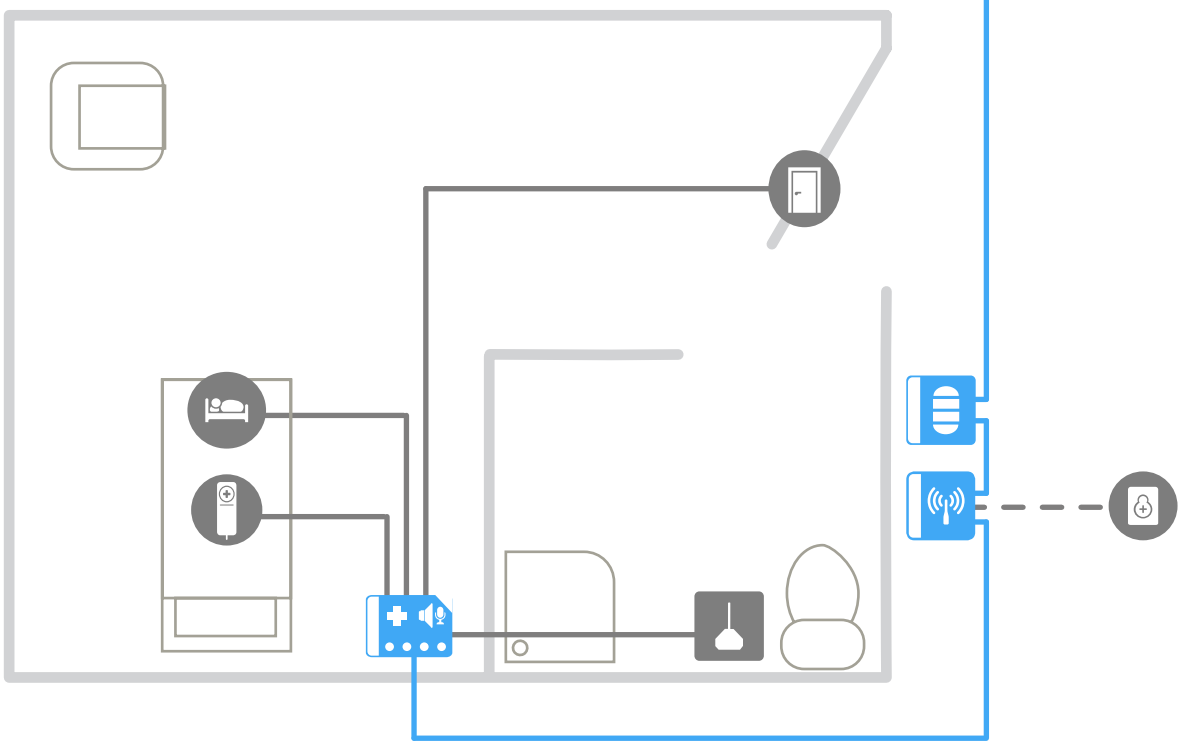
Configurations

Example configurations

Bathroom

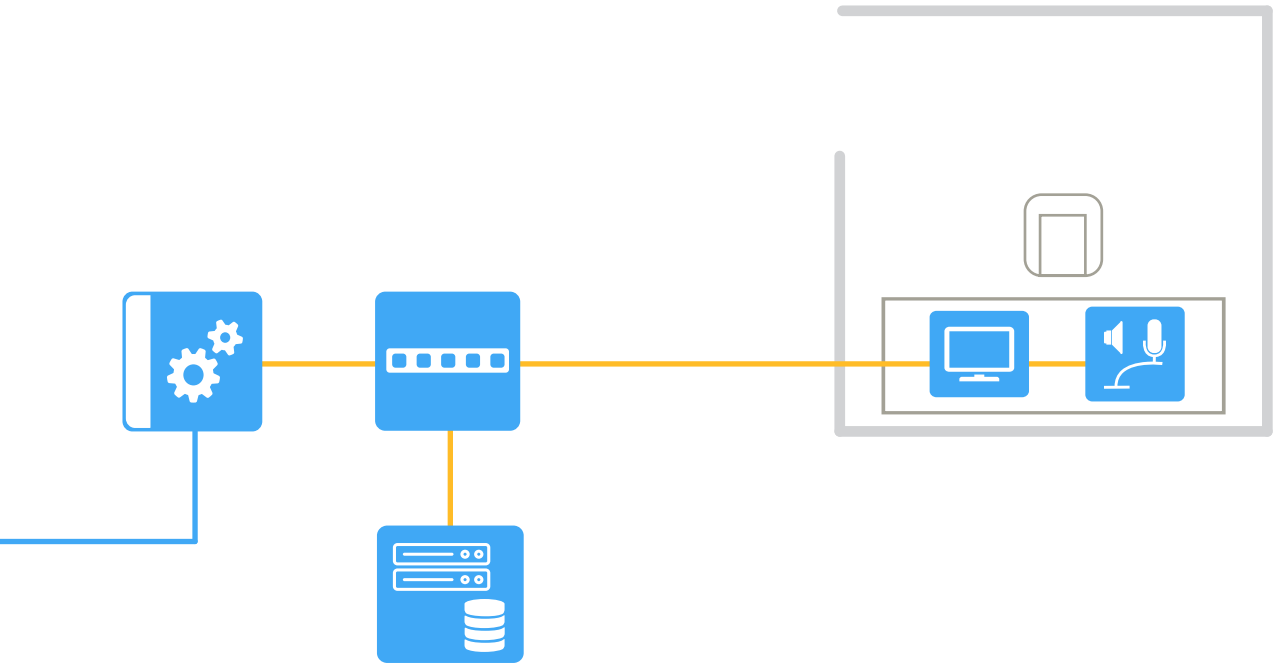


Double Room



Controller + Server

Nurse Station



Legend

- C8100 Local Controller
- C1600 NC + AM Module
- C1610 NC Module
- C2300 Over door light
- C5100 Wireless Module
- Bus
- Network
- Wireless
- Personal button
- Event Handler
- Server
- Network switch
- CLB Mic
- P2500 Pull Cord
- Door Sensor Passive
- Heart Rate Monitor
- Bed mat
- Handset

Testimonials

Case Studies

Westgate House Nursing Home, Northampton, United Kingdom

Westgate House is a privately owned nursing home with 41 residents from the age of 40 years old, suffering with mental illness and early & late onset dementia. They recently conducted a trial of CLB's Acoustic Monitoring system and they are already experiencing benefits.

"The trial of CLB's acoustic monitoring system has been a success and in particular for one of our service users who hadn't slept in his own bed for over 20 years now sleeps in his own bed at night. The system allows staff to monitor him, non-intrusively but also gives him his privacy back. The family are extremely pleased he is sleeping in his bed again"

Darrell Byrom - Owner

"Being able to set the sound system to detect the slightest sound, e.g. the onset of seizure activity, has proved very effective."

Palliative care assistant

Demelza, Kent, United Kingdom

Demelza Kent is a nine bed hospice providing a wide range of services and facilities for children and young people with life-limiting or life-threatening conditions and their families.

Demelza's team of Children's Palliative Care Nurses and Care Assistants are tasked with balancing the need for constant vigilance and ability to provide immediate assistance with allowing their service users to experience minimal intrusion in their lives.

CLB's Acoustic Monitoring system, complemented with IP cameras, is now used to facilitate continual, effective and appropriate monitoring of service users.

Demelza
Hospice Care for Children
Registered Charity Number 1039651

"Acoustic Monitoring is a proven technology that's already implemented by many health and social care homes in the Netherlands."

"The team of night carers no longer had to unnecessarily patrol the building, knocking on doors every hour, and residents in need of attention were reached much faster".

"The system paid for itself within 16 months."

Ed Russell – Operations Director - WCS

WCS Drovers House, Rugby, United Kingdom

WCS is a not-for-profit care organisation which pursues a policy of innovation and excellence. It has installed CLB's Acoustic Monitoring at Drovers House since March 2016. A roll-out across their other new and older care homes are being planned now the system has proven its value

The **number of falls at WCS were reduced by more than 50%** after Acoustic Monitoring was introduced in to the care home. The system alerts staff at an early stage, allowing them to attend to a resident before an accident can occur.

Drovers House staff and residents celebrating excellent CQC rating

CLB
TECHNOLOGY WITH CARE

About CLB

Established in 1981 and based in the Netherlands, CLB's reputation is built on its extensive experience in providing innovative integrated communication and alert systems to hospitals and care homes. CLB's innovative Acoustic Monitoring solutions monitor tens of thousands of residents in the Netherlands and have completely transformed the learning disabilities care market.

Our in-house development and manufacturing facilities are ISO 13485 accredited. This enables our products to be certified as Class IIb according the Medical Device Directive MDD 93/42/EEC Annex II.

With over three decades of experience and our dedicated commitment to meeting quality standards, we offer products and solutions that you can rely upon to provide care effectively and efficiently.

Our vision to 'Improve care by innovation' is the focus and purpose of all we do. It's what we believe in and what we are in business for to provide. This vision is fundamental to how we do things.

All rights reserved. All images used are for illustrative purposes only. Subject to technical modifications without notice.

"Our mission is to ensure sustainable growth by providing innovative solutions that result in complete customer satisfaction for healthcare institutions, caregivers and all the people they serve."

Mission Statement

‘Improve care by innovation’

CLB BV
G.G. Schipperstraat 24
1483 GE De Rijp
The Netherlands
+31(0)299393350
welcome@clb.nl
www.clb.nl

UK office
Tel. +44 (0) 7538 897 722
info@clb-international.co.uk

CLB
TECHNOLOGY WITH CARE

Distributed by:

ADAPTIVE IT SOLUTIONS
0844 808 6666 sales@adaptiveit.co.uk www.adaptiveit.co.uk