AXIOM
Wireless solution

COMPUTER MONITORED EMERGENCY LIGHTING SYSTEM
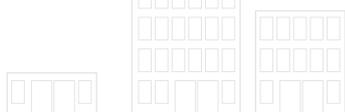
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What is AXIOM?

AXIOM replaces traditional computer monitored systems, with revolutionary state-of-the-art **wireless** technology.

The advantages:

1. Perfect for any installation
New or existing, small or large, commercial or industrial, single or multi-location premises.

2. Save costs
Less cost for less cables.

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3. Save time
Faster installation means less labour costs.

4. Backwards compatibility
Existing commander systems may be extended using AXIOM.

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"AXIOM provides a wireless solution to your computer monitored emergency lighting needs"

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The AXIOM network

An AXIOM network consists of a number of "areas", each managed by its own Wireless Area Controller (WAC). A serial cable connects each WAC to a centralised PC. The PC regularly collects data from each WAC, and also schedules polling and discharge tests.
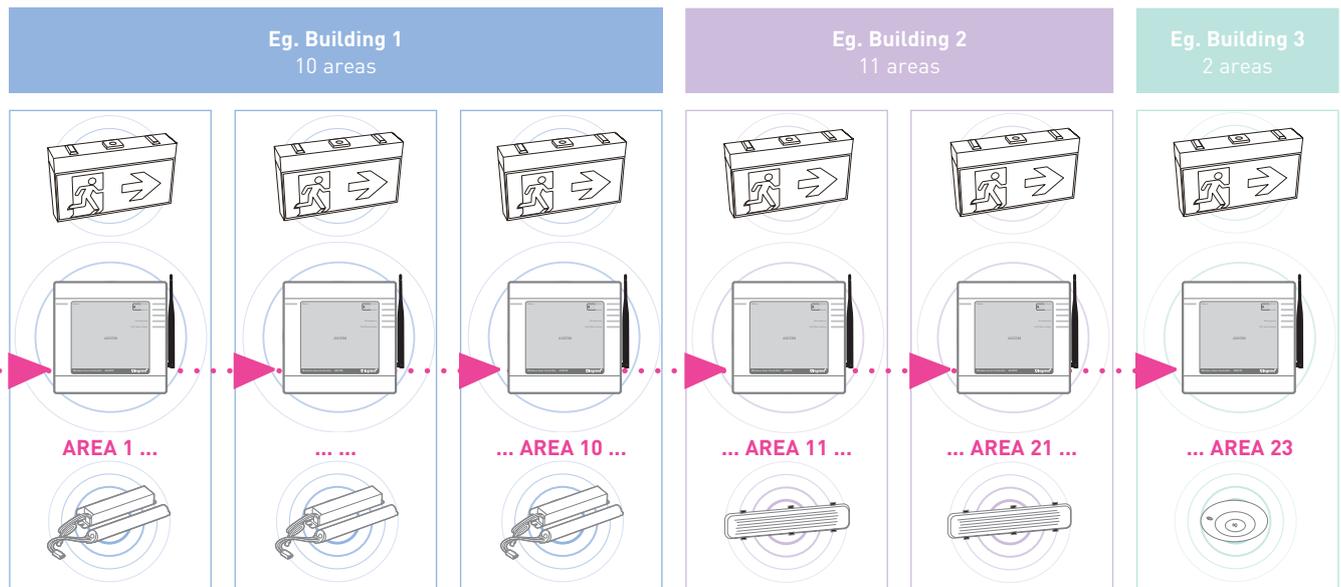
Testing

Monitor the status of all Single Point Units (SPUs) from one central location. With an unlimited number of areas per building, each area consists of **one** WAC and up to **60** SPUs.
Once commissioned, data is regularly collected, updated and printed through the PC, via Cat5 cable.

Connection via dedicated or ethernet Cat5 cable
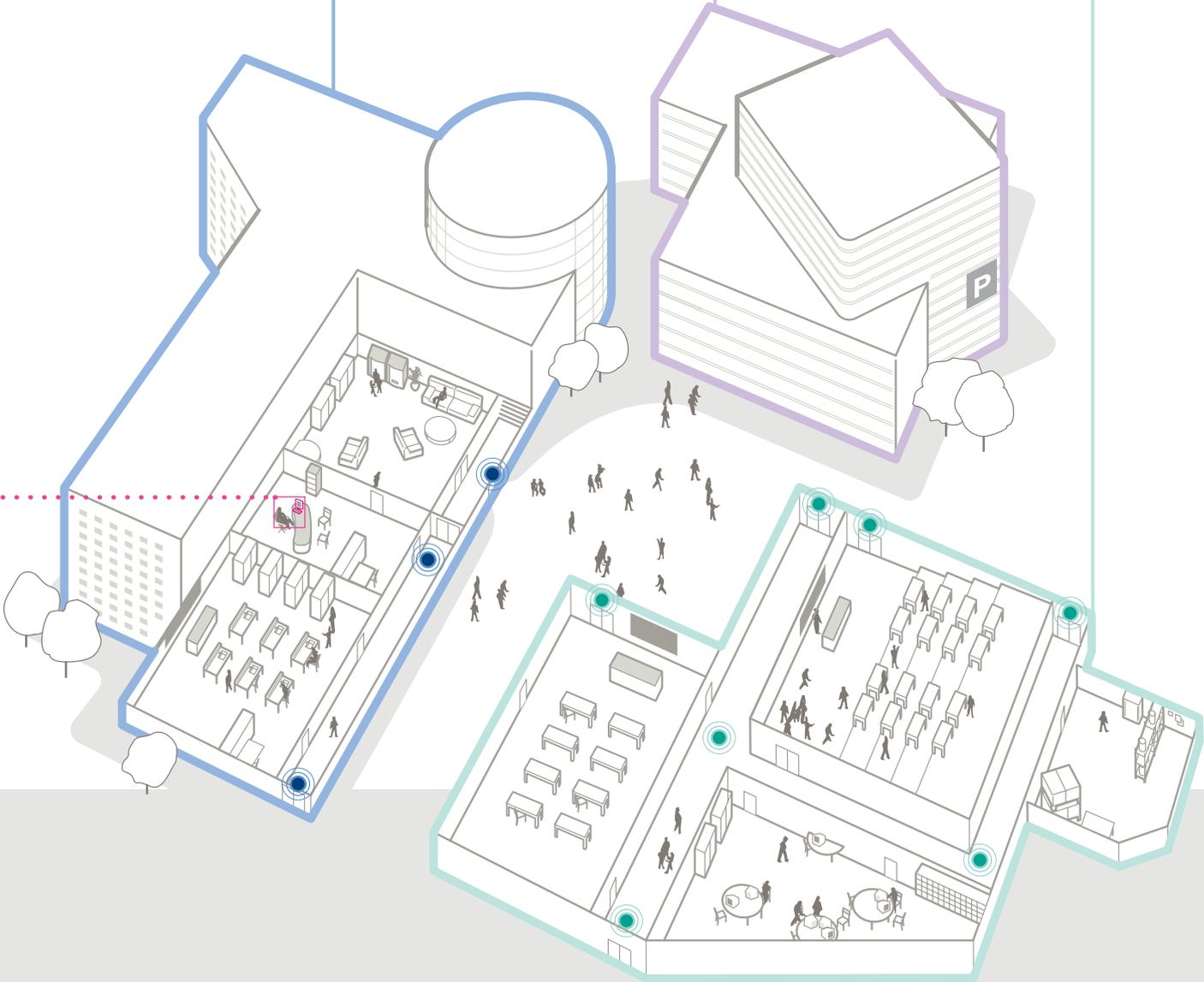
Facilities Office

Eg. Building 1	Eg. Building 2	Eg. Building 3
10 areas	11 areas	2 areas

| AREA 1 ... | ... ... | ... AREA 10 ... | ... AREA 11 ... | ... AREA 21 ... | ... AREA 23 |

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Building 1

Building 2

Building 3

AXIOM components

Each system is unique. Select from a wide range of basic items to design the appropriate system.

WAC

Wireless Area Controller
Compact, wall–mounted device for the collection and storage of local branch SPU status. The WAC must be hard–wired in a daisy chain from the control PC to other WACs. It communicates to SPUs via radio frequency or may be hard–wired.

SPU

Single Point Unit
Emergency light designed to operate from mains and from internal rechargeable batteries. It is equipped with a small antenna for communication with its local monitoring system.

Interconnecting Cables

Extra Low Voltage unshielded data cable connects WAC to WAC, WAC to PC, with the option of WAC to SPUs.

Trunk Cable – A standard CAT 5 cable terminated with RJ45 connectors (8P–8W). A 10–core flat cable may be used where the older style Commander Area Controllers exist in the network.

Branch Cable – Only used when RF communication is not possible. It connects from WAC to SPU, or from SPU to SPU. The cable is 6–core and uses RJ12 (6P–6W) connectors.

Repeater

An RF–enabled SPU without the lighting function. It is used to extend the range between a WAC and its SPUs.

PC

A customised desktop computer for continuous connection to the AXIOM network via an RS485 interface.

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"Build your own AXIOM system, with a wide range of components"

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AXIOM parts

AXIOM is backwards compatible, so the existing Commander range can be upgraded and extended with the new AXIOM system. See the following tables for all new AXIOM part numbers. For specific requirements, please consult your local Legrand representative.

AXIOM Communication

Cat No.	Description
6822 98	AXIOM Wireless Area Controller
6822 99	AXIOM Aegis Software
6823 77	LAN interface
2231 85	PC Communications Interface Unit

AXIOM Battens - Weatherproof

Cat No.	Description
68 4942	1x28W Maintained Batten
6849 48	2x28W Maintained Batten
6850 25	1x36W Maintained Batten
6850 26	2x36W Maintained Batten

AXIOM Battens

Cat No.	Description
6822 61	1x18W Maintained Batten Classification (D32/C25)
6822 65	2x18W Maintained Batten Classification (D32/C40)
6822 63	1x36W Maintained Batten Classification (D63/C63)
6822 67	2x36W Maintained Batten Classification (D63/D20)

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AXIOM Exit signs - surface mounted

Slide Connect Exit

Cat No.	Description
6862 03	LED - white body, RM legends
	Classification (D3.2/A5)
6862 11	LED - silver body
	Classification (D3.2/A5)

Side Mount Exit

Cat No.	Description
6844 3X	Diffuser as required
6844 38	Axiom Power Pack

AXIOM Exit signs - recessed

Edgelight Exit

Cat No.	Description
6844 22B	LED 4 X 1W Maintained/Non maintained
	Classifications(C8/E20)
6844 XX	Diffuser

Weatherproof Exit

Cat No.	Description
6846 60	LED weatherproof 2 x 1W

AXIOM Satellites

Cat No.	Description
6822 56	1x10W Polycarb satellite Classification (D20/D20)
6822 57	1x10W Surface mounted satellite Classification (D20/D20)

AXIOM Power packs

Cat No.	Description
6822 13	18W Power pack
6822 15	36W Power pack
6822 51	14W Power pack
6822 17	28W Power pack
6822 18	35W Power pack

Where can I use AXIOM?

Small Projects: Office / Warehouse

For installations of less than 100 units, AXIOM becomes more cost-effective because no data cables are required. The control computer may not be necessary, if regular maintenance testing is conducted using a laptop.

Hi-rise Office block

The traditional office block is well suited to AXIOM. A WAC is typically installed at the core of each level. The riser backbone combines all levels into a single system. Wireless communication allows easy relocation of AXIOM units, without the usual cost or damage of relocating the cables.

Academic & heritage buildings

A wireless installation means sandstone walls or concrete ceilings are preserved, with no unsightly cables to hide. Retrofit solutions are just as easy as new installations.

Retail

Renovations of tenancies can be carried out without having cables cut accidentally. AXIOM units communicate easily via RF in large open spaces, which eliminates the need for scaffolding or other site interruptions.

Medical, Airport & Communications

AXIOM is suitable for sensitive sites. The AXIOM transmission radio frequency is 920MHz which falls under the Industrial Scientific and Medical (ISM) band specified by the Australian Communications and Media Authority. AXIOM's ability to poll its emergency lights can also be restricted to infrequent or after hours occurrence where RF restrictions may apply.

AXIOM

" Perfect for
any installation,
AXIOM adapts to your
needs"

Industrial

Wireless communication is less susceptible to interference from machinery or elevators, than data cabled or mains-borne systems

Multi-Building sites

RF transmission between buildings is not guaranteed. However, modem or LAN interconnection can be considered where the laying of Cat 5 cables is not possible.

Multi-Site Applications
Modem and LAN solutions can be custom engineered to monitor all local and national branch locations from one central site.

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