



Z D A N I A

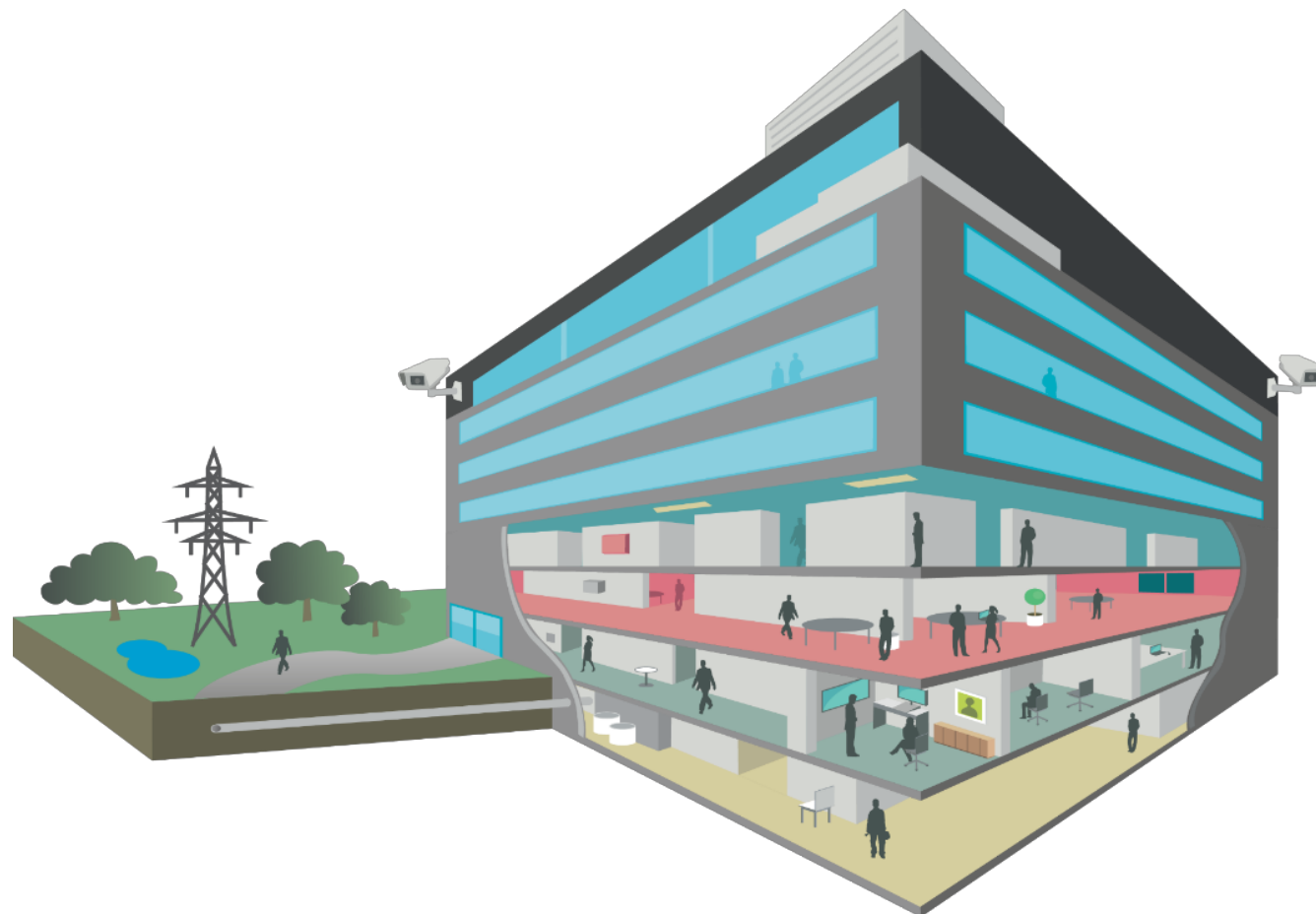
S I N C E 1 9 9 2



Optimal energy efficiency of buildings thanks to integrated automation systems

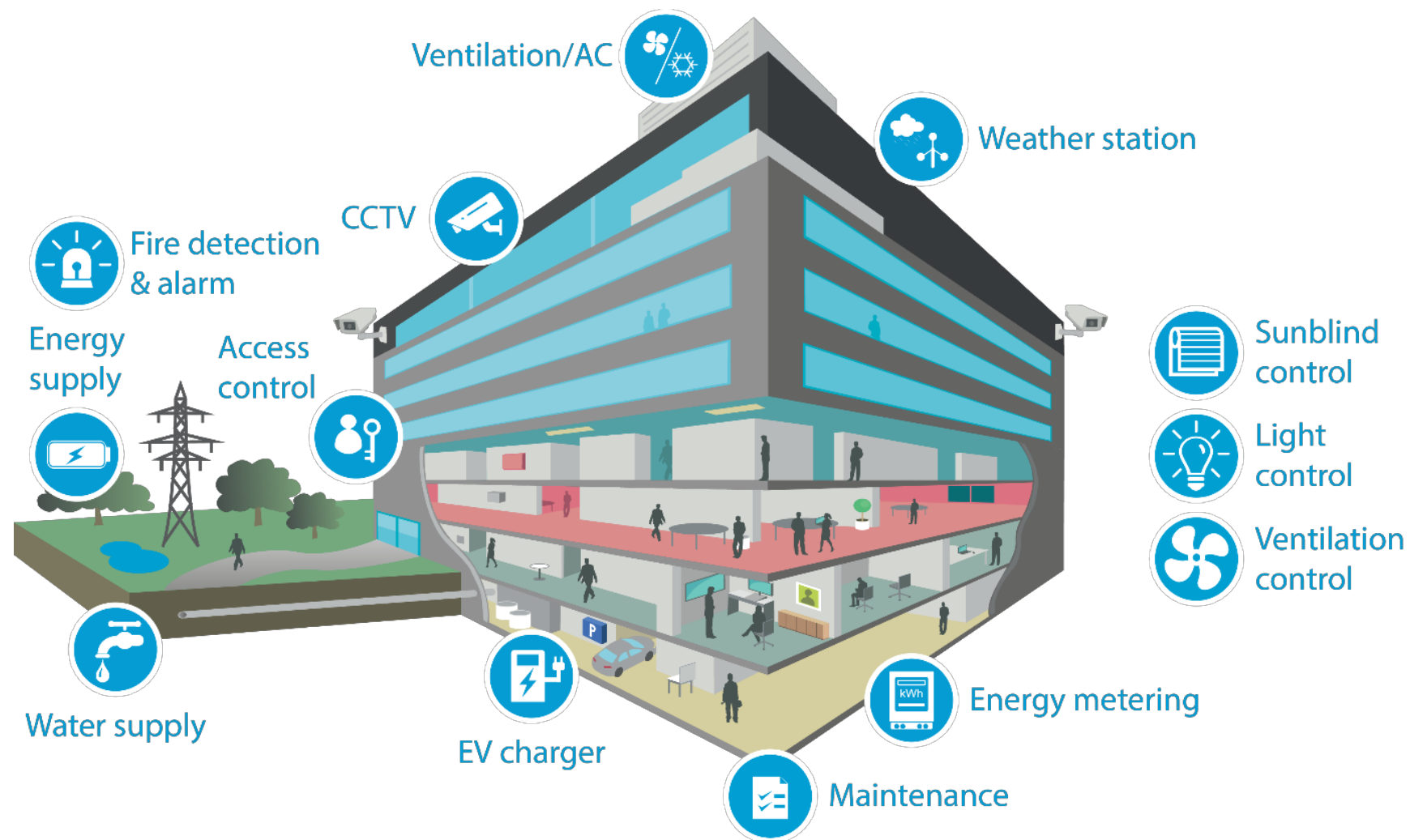
Building Management and Control

fully integrated – seamlessly connected – securely networked



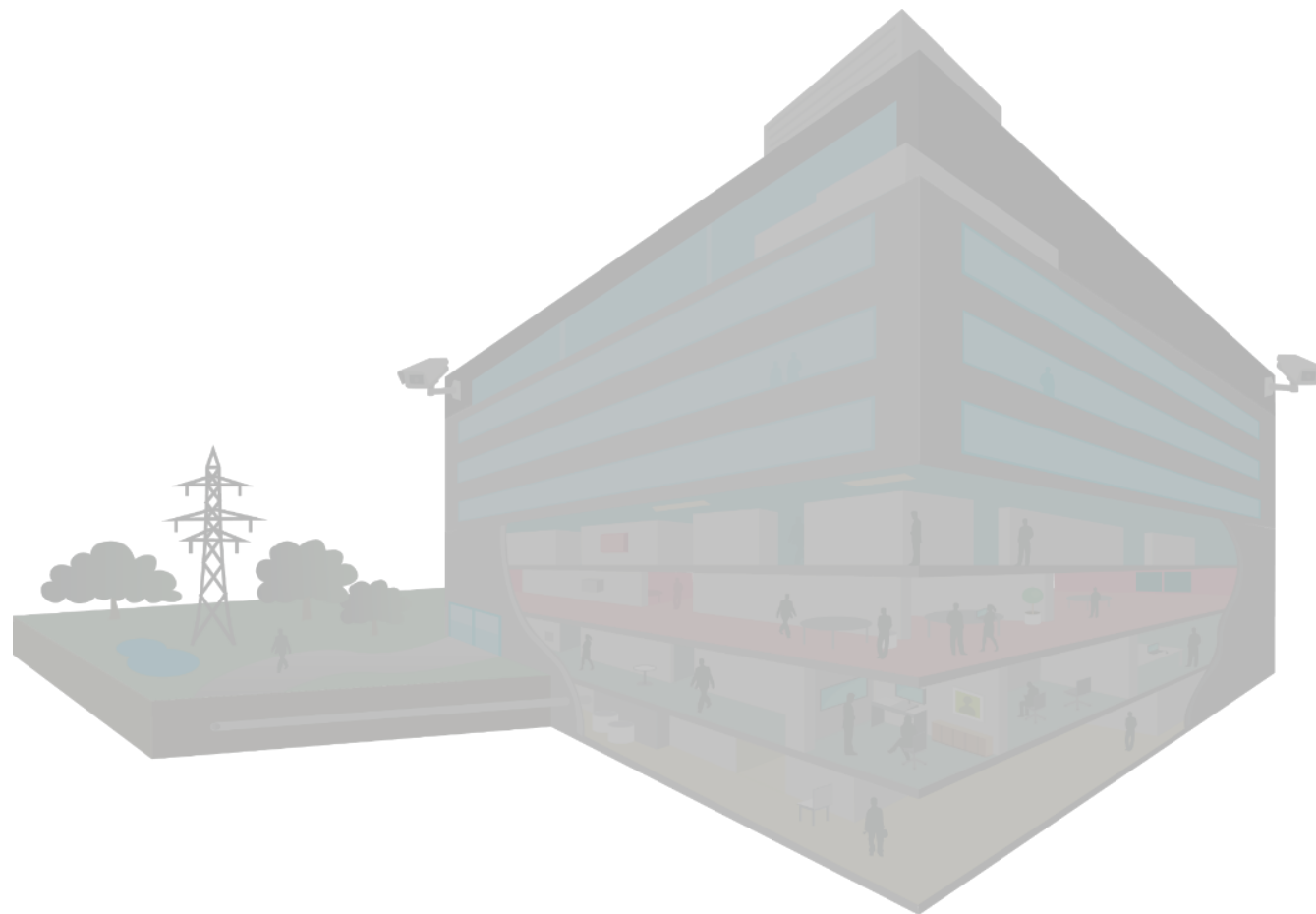
Building Management and Control

fully integrated – seamlessly connected – securely networked



Building Management and Control

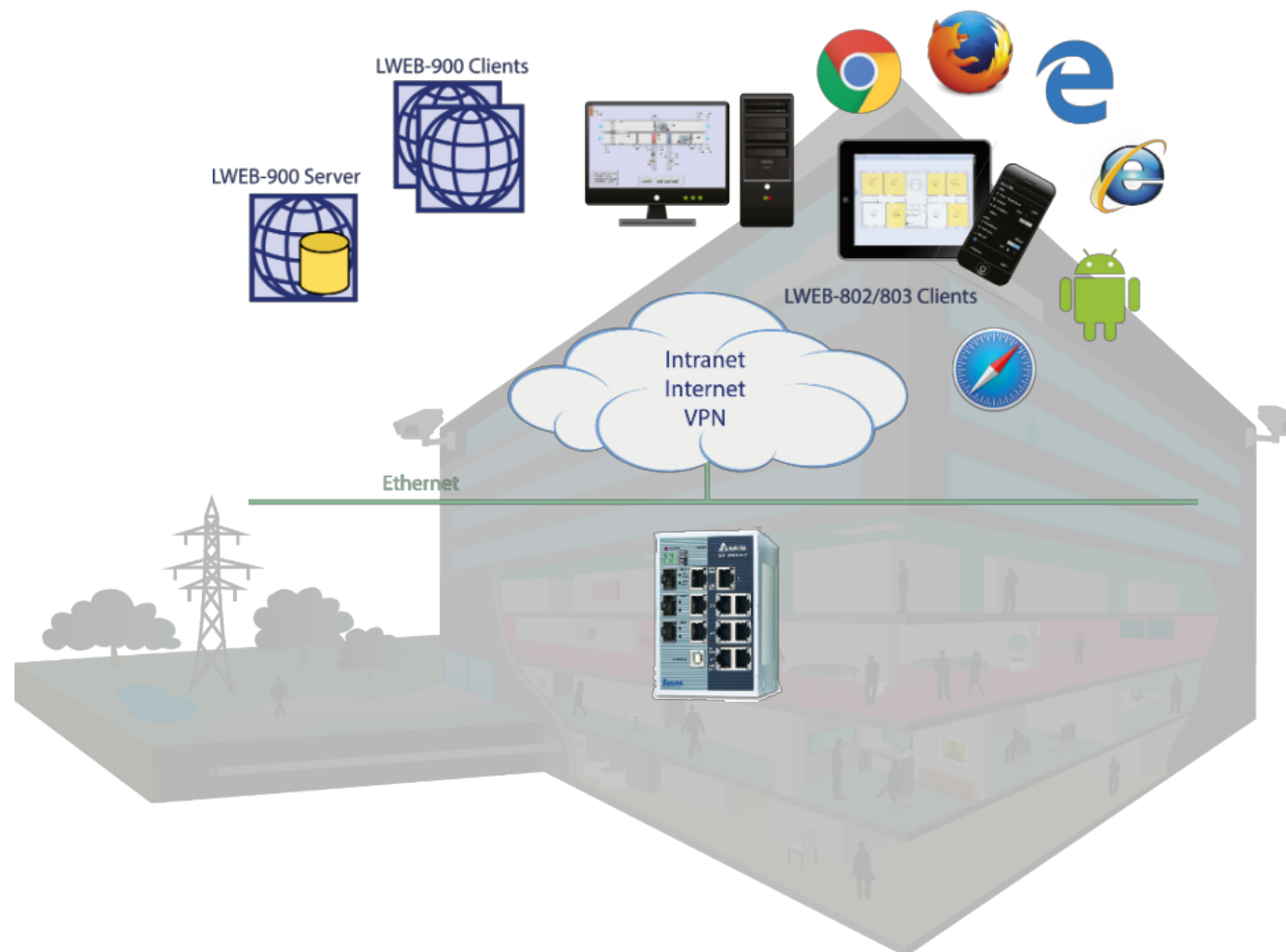
fully integrated – seamlessly connected – securely networked



Building Management

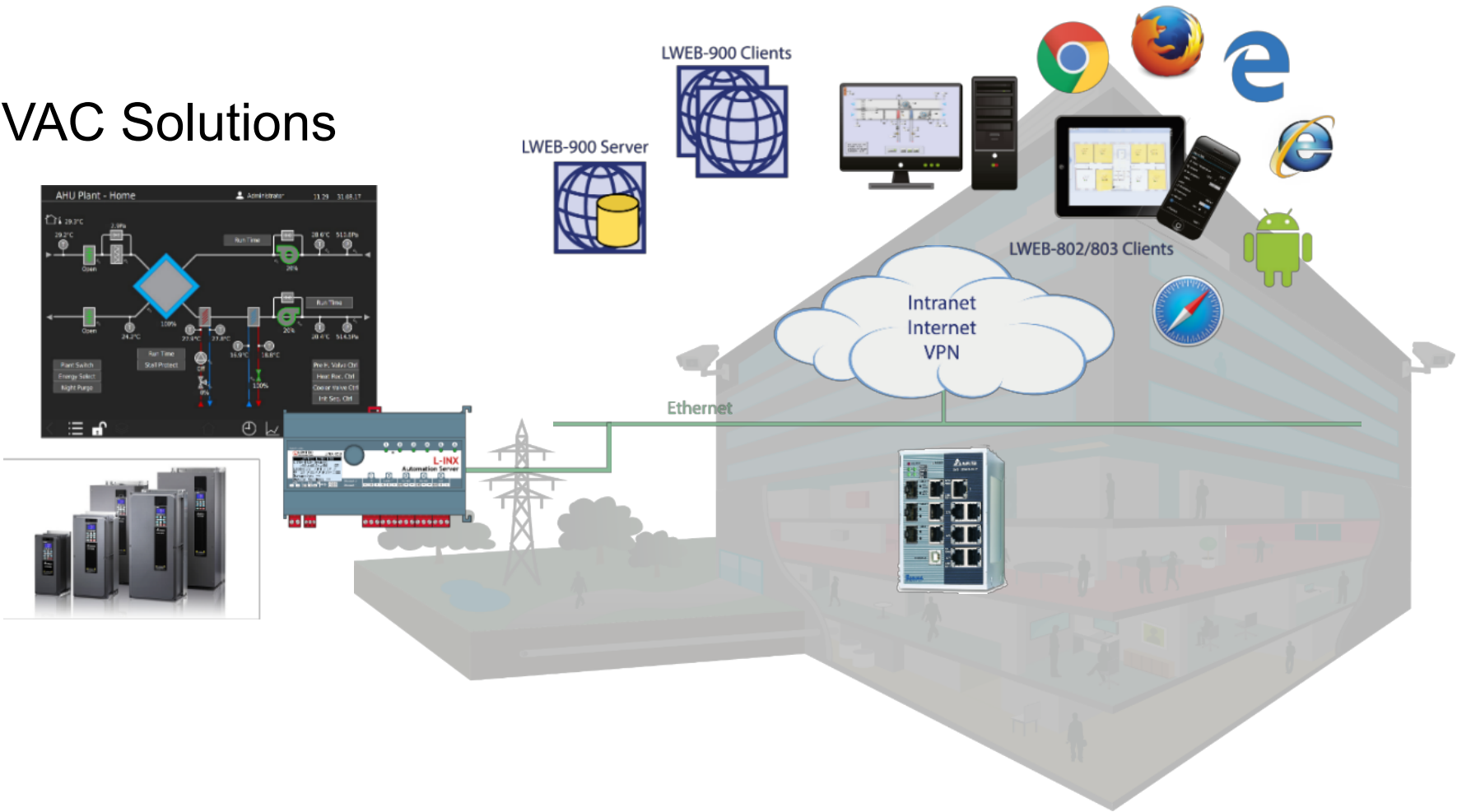


Building Management



Building Management

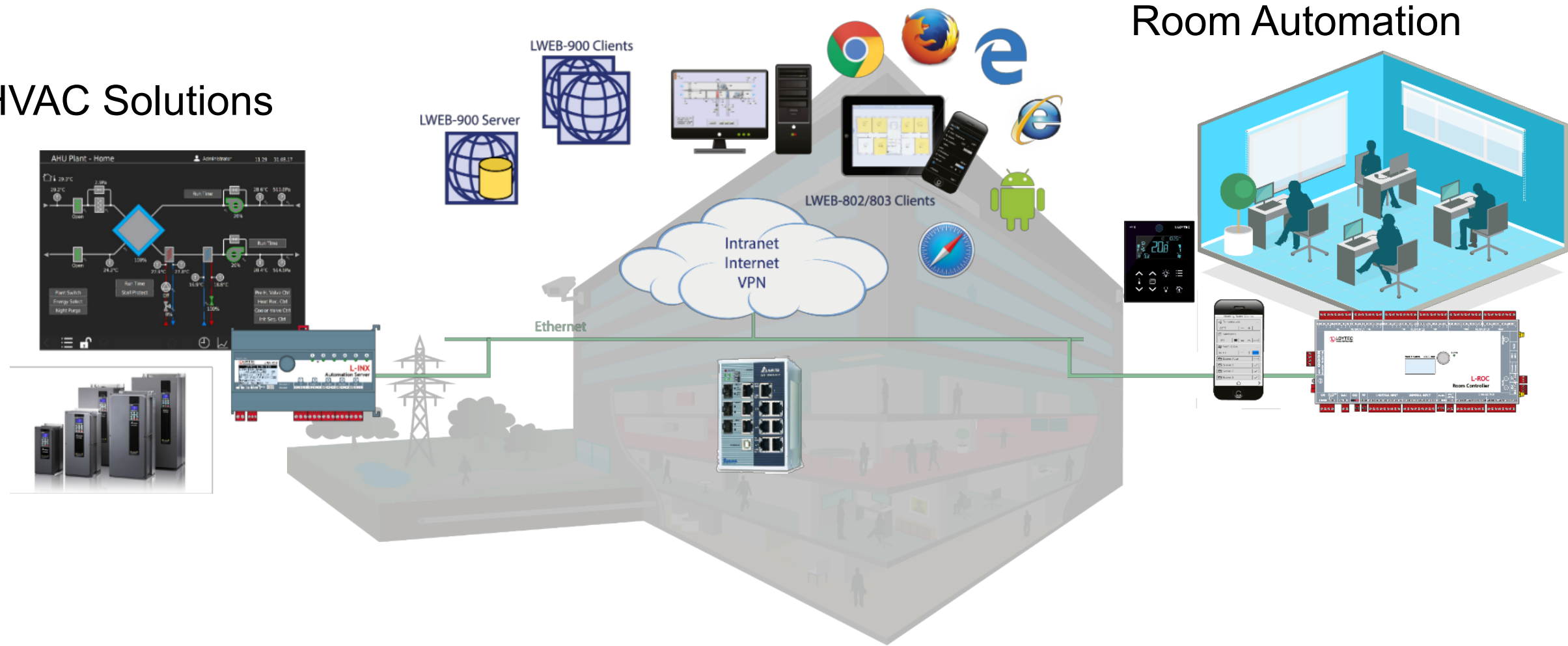
HVAC Solutions



Building Management

HVAC Solutions

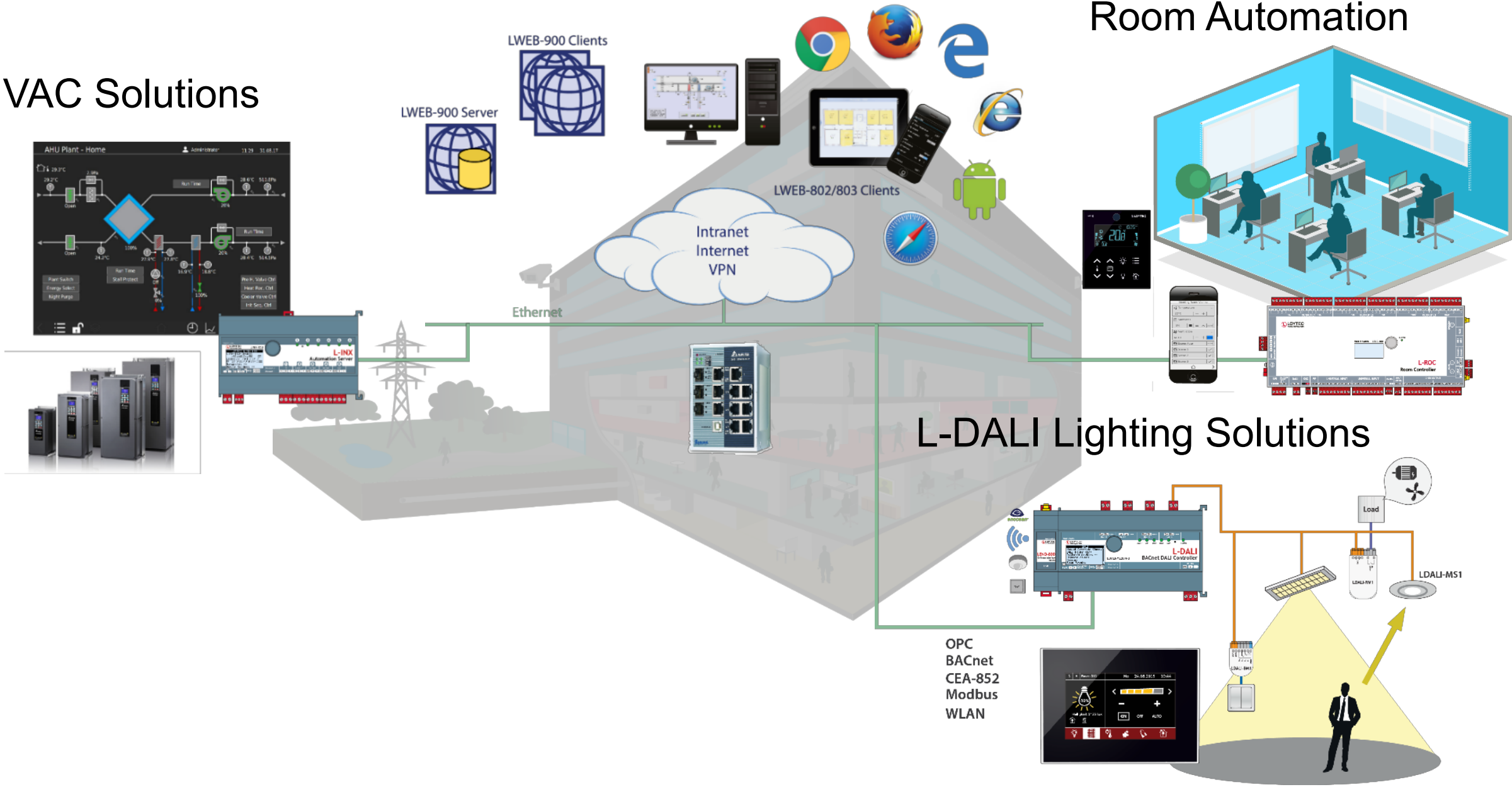
Room Automation



Building Management

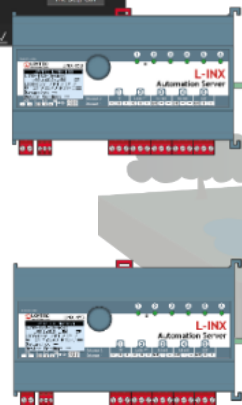
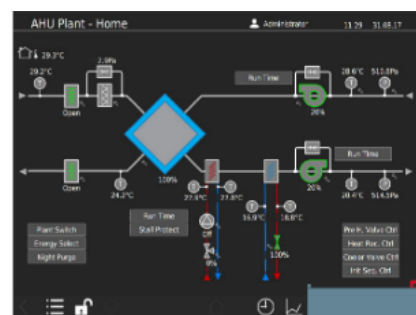
HVAC Solutions

Room Automation

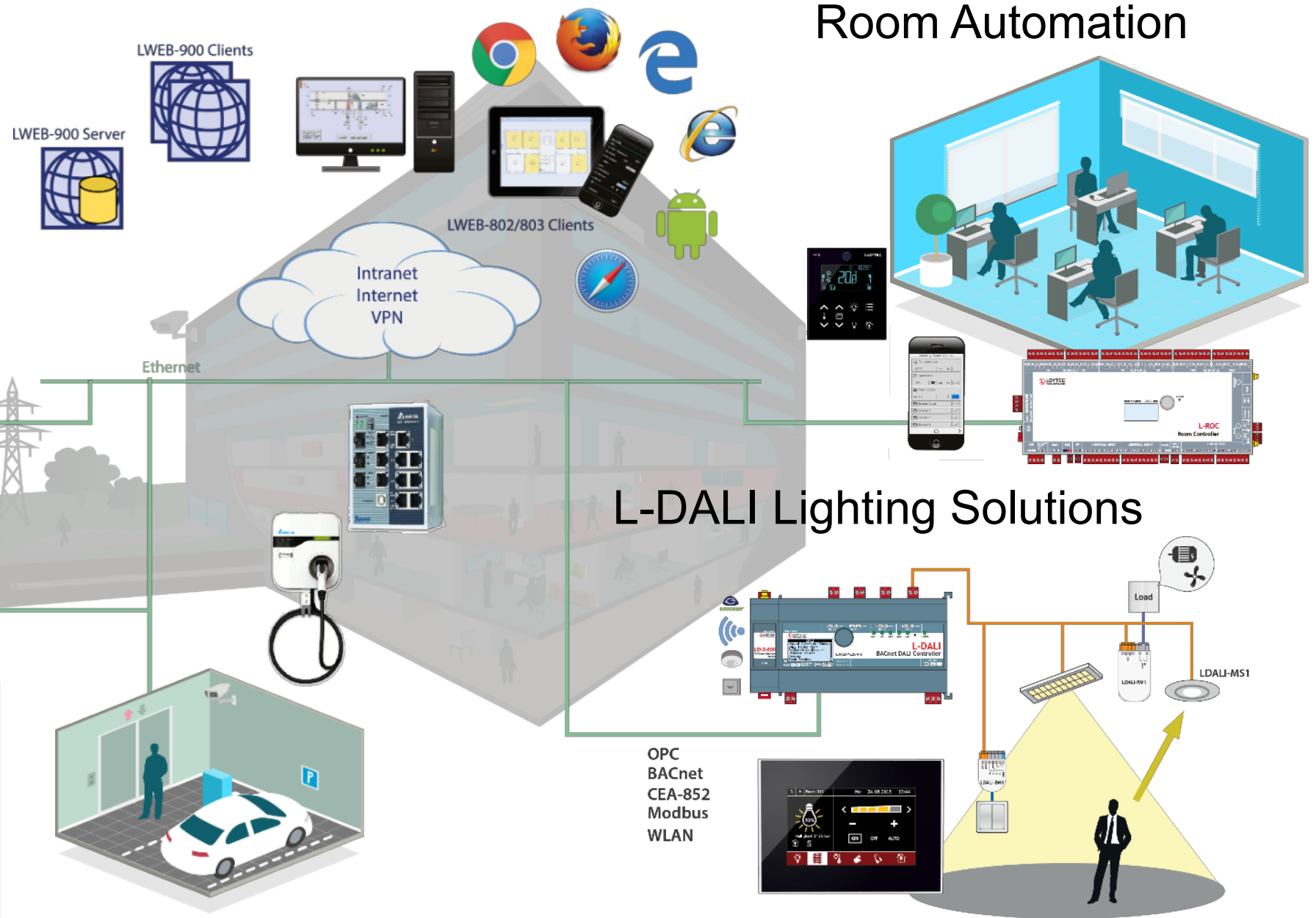
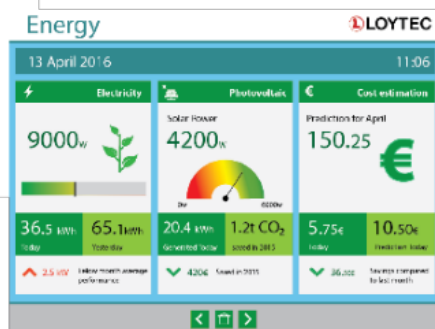


Building Management

HVAC Solutions



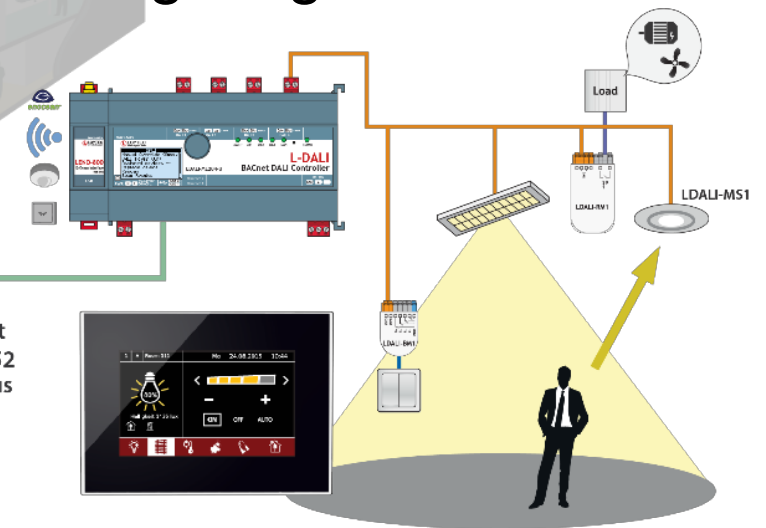
Energy Management



Room Automation



L-DALI Lighting Solutions



We connect via all protocols...



ZDANIA who we are:

- ① Private company founded in 1992
- ① Spin-Off of the University of Technology in Krakow (AGH)
- ① Together with LOYTEC Worldwide operations
- ① Headquarters in Krakow, Poland
- ① around 40 employees, including experts of technology design, financing technology innovations, product development
- ① Since 2014, part of LOYTEC (Competence Center), since 2016 LOYTEC is part of the Delta Electronics Group

ZDANIA what we offer:

- ① We integrate Building automation solutions
- ① We deliver automation solutions, technical project design, integration, products production, innovations
- ① We offer brands: LOYTEC, iBAsE, ZDANIA
- ① We provide tangible benefits for the properties :
 - ① Energy Efficiency
 - ① Control

BENEFITS

RELIABILITY

Why our Company?

- ① ZDANIA is known to be innovation and academic leader in the industry
- ① ZDANIA develops and manufactures all products in-house
- ① ZDANIA possesses all core competences in the Automation business
- ① ZDANIA focuses on “open standards”
- ① ZDANIA goal is to be your first choice product supplier when it comes to building automation and management applications
- ① ZDANIA offers products to build
 - ① highly integrated,
 - ① multi protocol,
 - ① distributed building automation and management systems
- ① ZDANIA provides entire process from audit, concept, project design, installation, services, monitoring...
- ① ZDANIA provides systems for newly built and existing buildings

27 years of experience in buildings automation

- The Experimental Department of the AGH UST Science Equipment was privatized in 1992 as the first spin-off in Poland
- Designing, installation, commissioning and servicing of integrated building automation and safety systems as well as production of controllers and software
- The creator of the brand, created in cooperation with the academic staff of AGH in Krakow
- Promoter of the OPENness principle in building automation systems and integration at the OBJECT level
- Member of the LonMark Association
- LOYTEC Competence Center in Poland

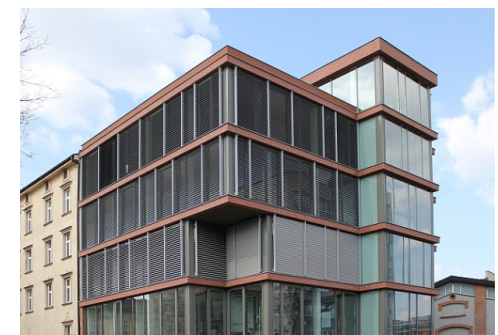
iBAsE[®]



Centrum Energetyki AGH



Biuro BUMA Quattro



Małopolskie Laboratorium
Budownictwa
Energooszczędnego
Politechniki Krakowskiej

Kompleks 11-stu budynków nowego Kampusu 600-lecia UJ



Investors, our clients appreciate the quality, efficiency and effectiveness of our projects ... (1/2)

A complex of buildings of the new III Campus of the Jagiellonian University



Total area: 145 700 m²
Number of controllers: 8,896
The number of variables in the visualization: 104,867



Investors, our clients appreciate the quality, efficiency and effectiveness of our projects ... (2/2)



BUMA Quattro

Powierzchnia: 24 200m²

Ilość sterowników: 181

Ilość zmiennych w wizualizacji:
2 007



Małopolskie Laboratorium Budownictwa
Energooszczędnego Politechniki
Krakowskiej

Powierzchnia: 1 100m²

Ilość sterowników: 345

Ilość sygnałów systemu pomiarowego:
3 120



Centrum Energetyki AGH

Powierzchnia: 18 000m²

Ilość sterowników: 1 300

Ilość zmiennych w wizualizacji:
11 965

Key partner: LOYTEC electronics GmbH

- ① Privately founded in 1999
- ① Spin-off of the Vienna University of Technology
- ① Worldwide operations
- ① Headquarters in Vienna, Austria
- ① Since April 2016, LOYTEC is part of the Delta Electronics Group
- ① around 70 employees, almost half of them working in product development
- ① For ISO 9001:2000 certification since the year 2004



DELTA Electronics

- ① Listed corporation
- ① Founded 1971
- ① Headquartered in Taiwan/Taipei
- ① Employees worldwide: 80.000
- ① Headquarters of EMEA Europe in Amsterdam
- ① For years, world market leader in power supplies and DC fans.

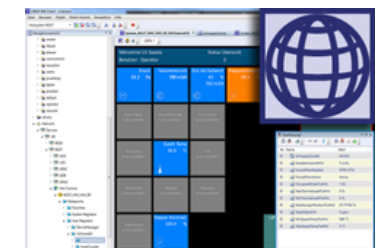


Mission Statement

- ① We conduct industrial research and development work to discover new ways and possibilities of operating in the modern automation industry. We design, manufacture, supply and implement safe and innovative solutions for building management and increasing energy efficiency.
- ① We are a high-quality, dynamic, medium-sized innovative design and implementation company, both nationally and internationally, constantly building market position and customer satisfaction, together with a network of partners.
- ① We use innovative technologies and open communication protocols in products that set trends. We form the basis for effective system integration and high energy efficiency during operation and protection of facilities.

Products Core Business

- ① Core Technologies
- ① System Design & OEM Products
- ① Network Infrastructure Products
- ① Gateways
- ① Embedded Touch Panels
- ① DALI Lighting Management Systems
- ① Network Diagnostic and Analysis Tools



System Business - Products

- ① Technical Building Management and Control
 - ① Based on Web services
 - ① Central data storage on SQL server
 - ① Outstanding scalability
 - ① GUI tailored for user needs
- ① Automation Servers
 - ① Family of products offering interfaces open for BACnet, LonMark Systems, Modbus, M-Bus and OPC
 - ① Freely programmable (IEC 61131-3)
 - ① Efficient I/O integration by using L-IOB Modules
 - ① Distributed alarming, scheduling and trending functionality

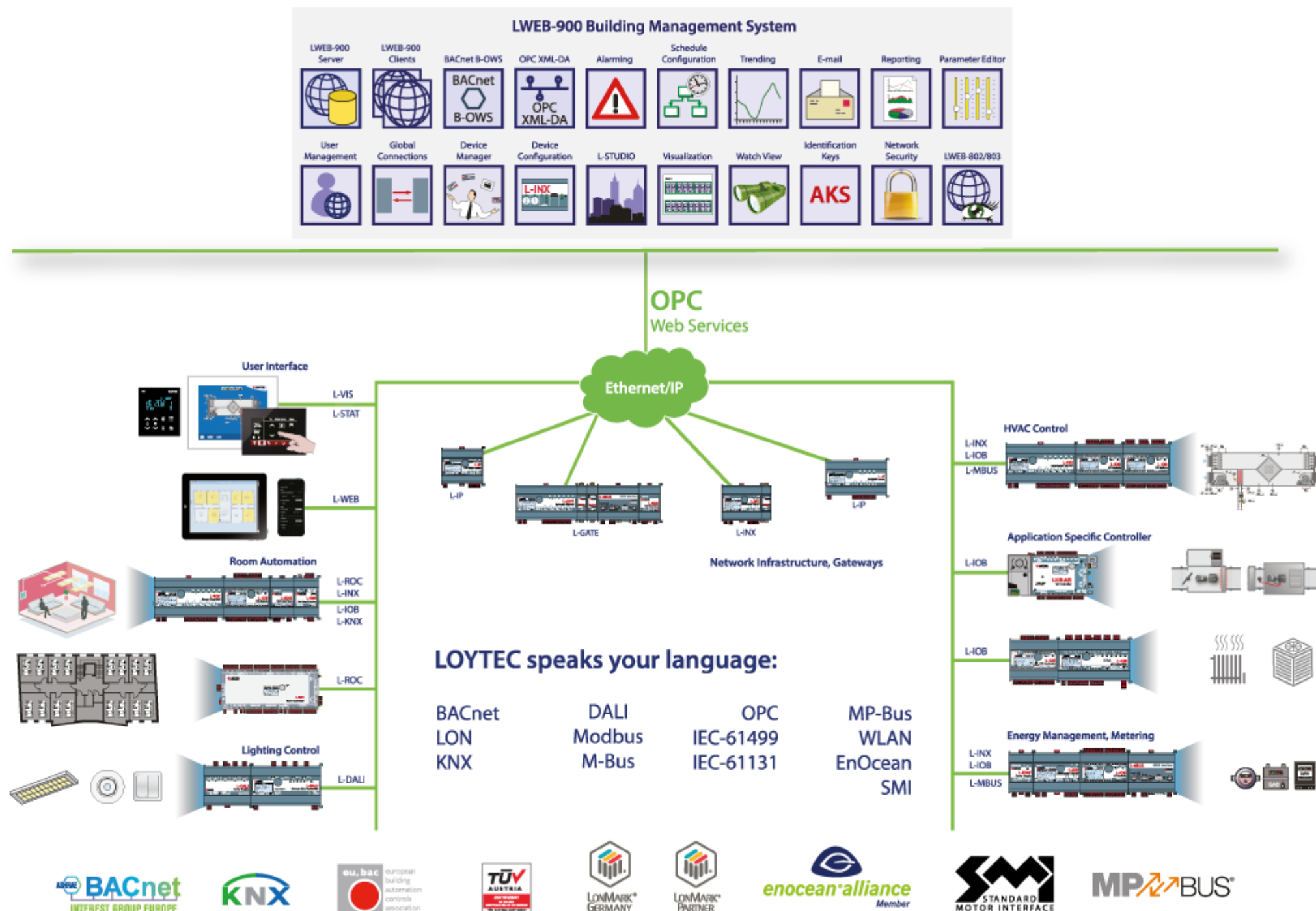
Portfolio of our customers consists of different type of institutions with different needs ...

Delivering segment-specific solutions

- Offices
- Education/Universities
- Government and local Government
- Hotels
- Industry and technology
- Business



Product Overview



BENEFITS

With the right solutions of technological installations and BMS solutions, optimal savings and the maximum level of energy efficiency of the building should be expected

For office buildings up to 30-40%!

Typy budynków niemieszkalnych	Szczegółowe współczynniki efektywności BACS $f_{BACS,H}$ i $f_{BACS,C}$							
	D		C (Wzorcowy)		B		A	
	Energetycznie nieskuteczne		standard		Systemy zaawansowane		Wysoka efektywność energetyczna	
	$f_{BACS,H}$	$f_{BACS,C}$	$f_{BACS,H}$	$f_{BACS,C}$	$f_{BACS,H}$	$f_{BACS,C}$	$f_{BACS,H}$	$f_{BACS,C}$
Biura	1,44	1,57	1	1	0,79	0,80	0,70	0,57
Salę wykładowe	1,22	1,32	1	1	0,73	0,94	0,3 ^a	0,64
Budynki edukacyjne (szkoły)	1,20	-	1	1	0,88	-	0,80	-
Szpital	1,31	-	1	1	0,91	-	0,86	-
Hotele	1,17	1,76	1	1	0,85	0,79	0,61	0,76
Restauracje	1,21	1,39	1	1	0,76	0,94	0,69	0,6



Tablica 1: Współczynniki efektywności BACS dla energii grzewczej $f_{BACS,H}$ i chłodniczej $f_{BACS,C}$

Our approach to design buildings technology transforms form multiple isolated systems into integrated approach

Do you have:

Multiple networks and systems from multiple vendors?

Too many systems to learn?

Complex troubleshooting?

Many contacts?

Higher capital and operational expenditures?

Obstacles to achieving energy efficiency?

Difficulties to know promptly what has happened?

Integrated solutions in a building

Architecture and construction
Technical installations
Heat sources + distribution
Cooling sources + distribution
Distribution of water
RES
Sanitary installations
Ventilation and air conditioning
Elevators and escalators are energies

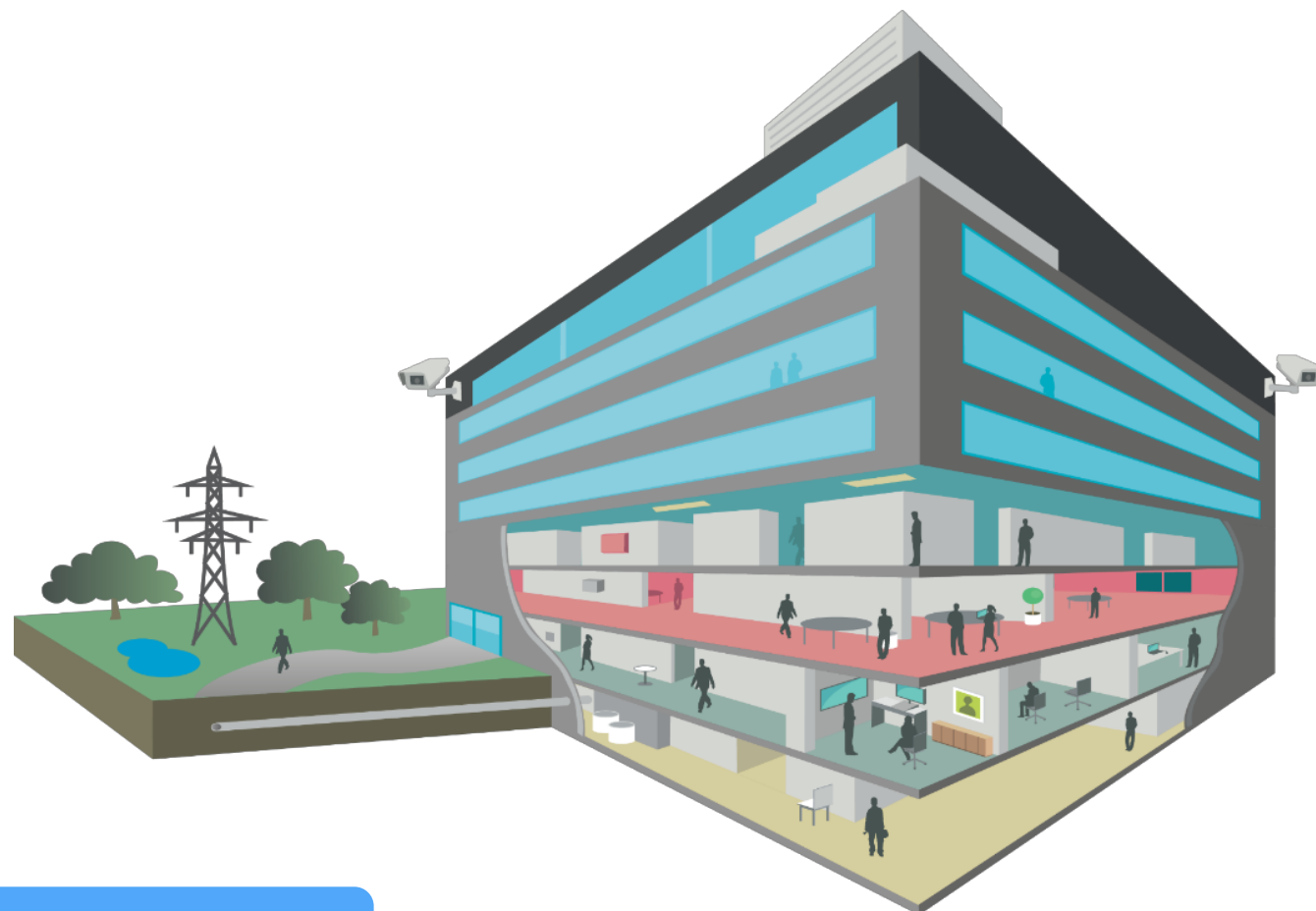
Low voltage installations
Automation of technical installations
Monitoring of technical installations
Energy monitoring

ICT installations
Computer Networks
Telephone networks
Server Rooms

Security systems
Fire alarm system
The smoke exhaust system
Extinguishing system
SSWiN system.
Access control
Voice alarm system.
Monitoring system
CCTV

Audiovisual systems
Industrial television

Electrical installation
External power supply
Backup power supply
Emergency power supply
Switchboard
Distribution
Lighting



Energy Efficiency & Control:

- Measure and control energy, automate, provide relevant diagnosis
- Manage processes
- Make all the utilities of any infrastructure more efficient

BENEFITS

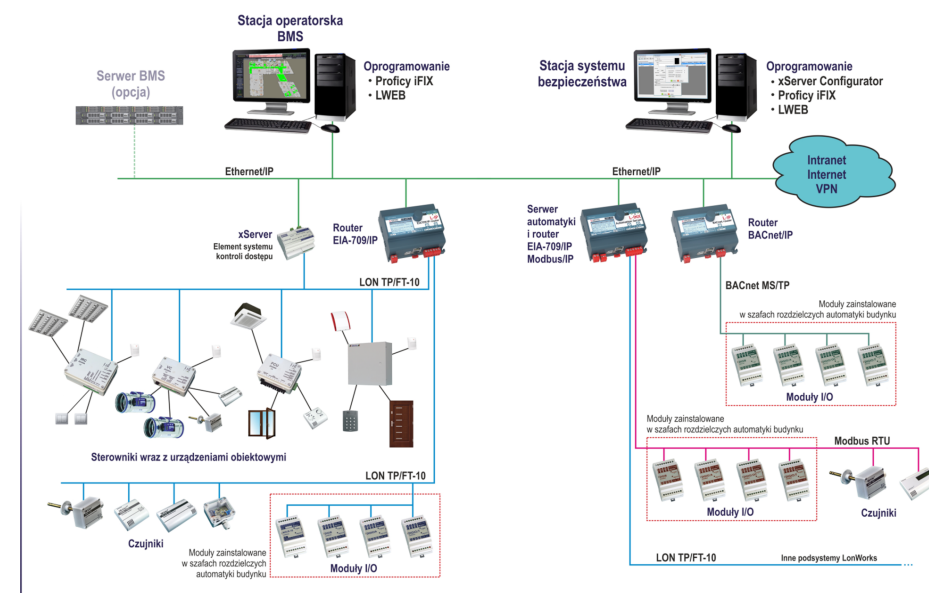
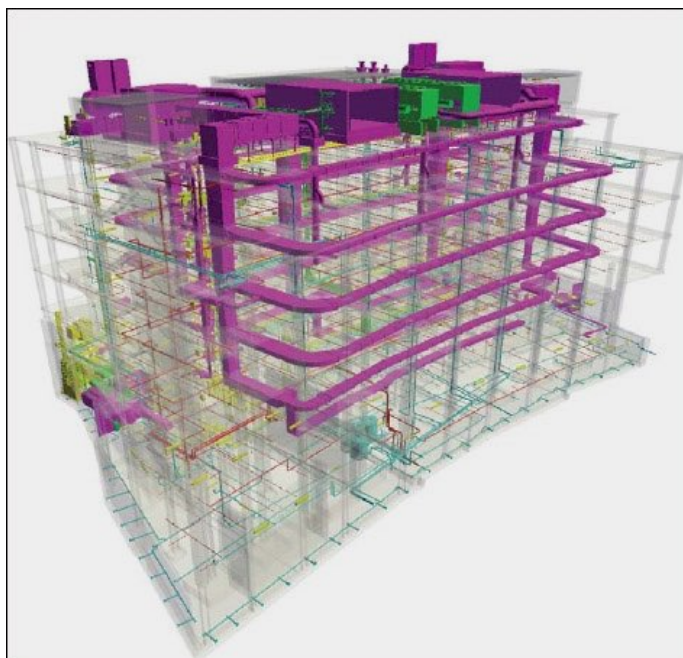
Optimal efficiency in the operational phase comes directly from the level of integrated automation and technical facilities of all technological installations in the building.

technical installations

- Power supply in utilities and energy sources, including reserve sources and renewable energy sources
- Distribution of electricity and heat
- Lighting
- Mechanical installations - mainly ventilation and air conditioning, cold sources
- Sanitary installations - water, sewerage, heat
- Computer and ICT network

safety installations

- System kontroli dostępu
- System sygnalizacji włamania i napadu
- Telewizja dozorowa
- System sygnalizacji pożaru



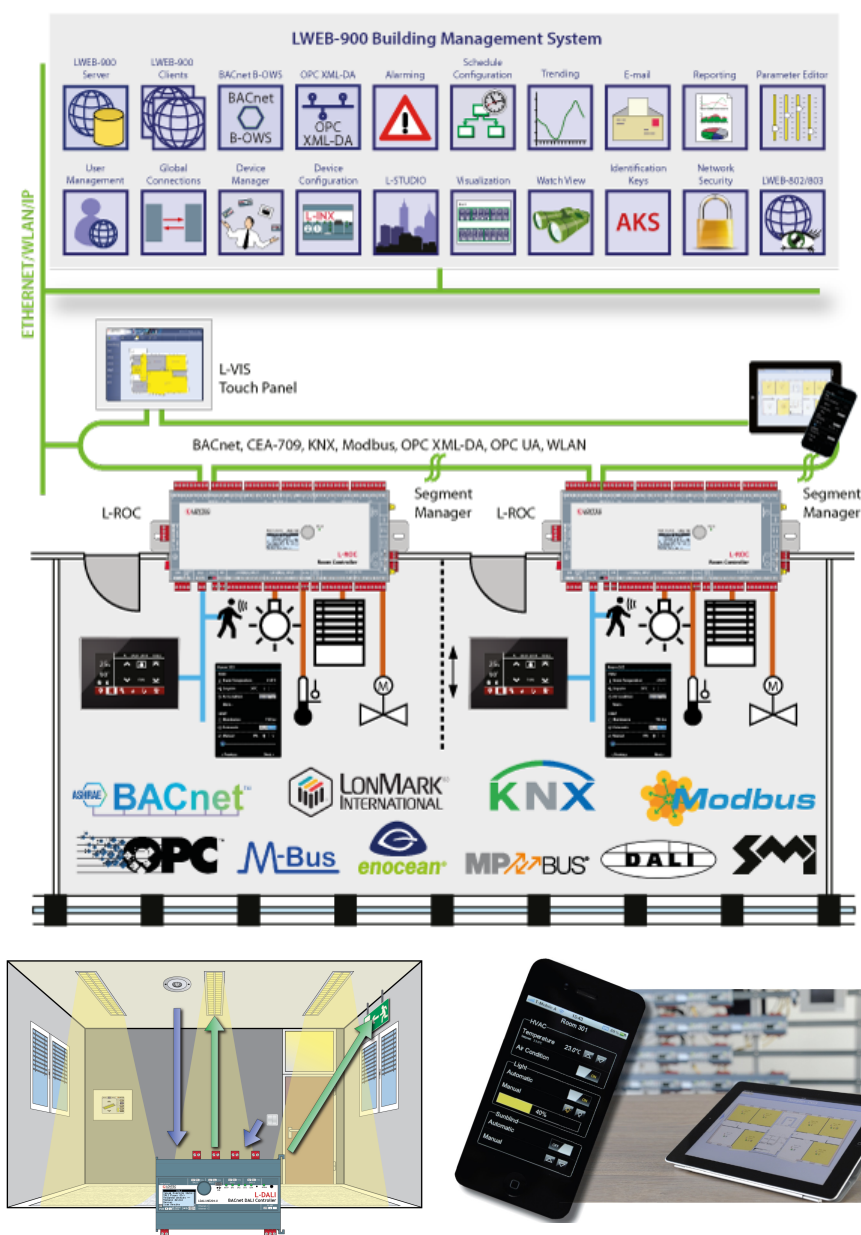
- Functionalities of all installations
- Technologies and devices used
- Expected level of energy efficiency
- Management and control concept (eg central - floor - segment - room)

- Compliance with the purpose of the building (office, hospital, school, etc.)
- Communication protocols
- Networks and mains
- Devices and technologies used
- Quality of implementation
- Service and monitoring

Only the integrated fulfilment of these conditions gives maximum results!

iBAsE[®]green

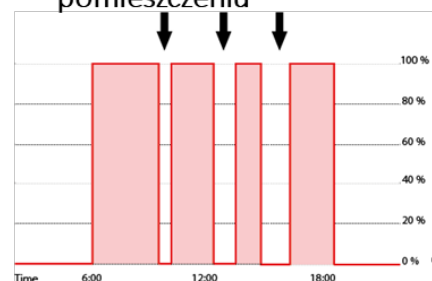
is a complete automation, control and management system for a modern building with many possibilities to meet individual needs



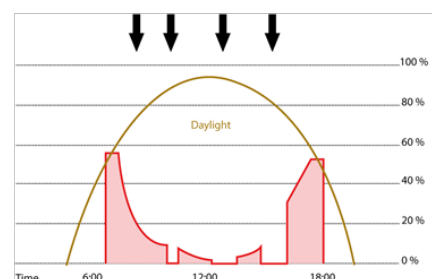
LOYTEC
A Delta Group Company

iBAsE[®]

➤ Sterowanie oświetleniem w zależności od obecności w pomieszczeniu



➤ Sterowanie oświetleniem w trybie stałego natężenia oświetlenia



A complete system - tailored to individual needs

- The solution based on controllers and devices from the LOYTEC and iBAsE brands of ZDANIA
- Unlimited functionalities of BMS - consistent with the assumed level of energy efficiency of the building and the required level of user comfort
- The solution implements the principle of open systems (protocols, devices) and object-level integration - as the most effective approach to BMS

The role of the investor is crucial!

The correct process will give the expected maximum results!

- The level of energy efficiency fully in line with the assumptions and expectations
- - the highest possible efficiency of ventilation, air conditioning and heating
- - the optimal ratio of investment costs to the achieved effect of efficiency
- All technological installations are optimally designed and implemented and give full control possibilities
- - higher comfort of individual rooms (temperature, humidity, lighting, CO2 concentration, presence, schedule) - depending on the demand
- - full access control with burglary and robbery signalling and interoperability of security systems with comfort automation, eg lowering the temperature in the absence of presence
- Full monitoring of media and technological installations

COST SAVINGS

OPTIMAL ENERGY BALANCE

CONTROL

SECURITY

MODERNITY

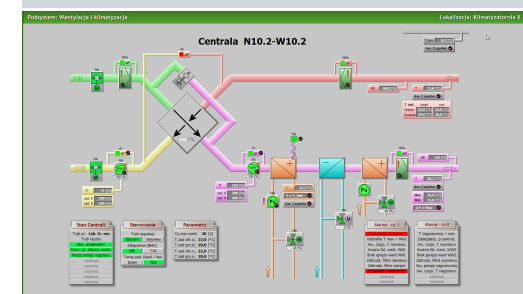
ECOLOGY



BACS Klasy efektywności energetycznej – EN 15232

Wysoka efektywność energetyczna BACS and TBM	<input checked="" type="checkbox"/>	A
Zaawansowany BACS and TBM	<input type="checkbox"/>	B
Standardowy BACS	<input type="checkbox"/>	C
Brak efektywności energetycznej BACS	<input type="checkbox"/>	D

BACS TBM System Automatyki i Zarządzania Budynkiem
System Technicznego Zarządzania Budynkiem

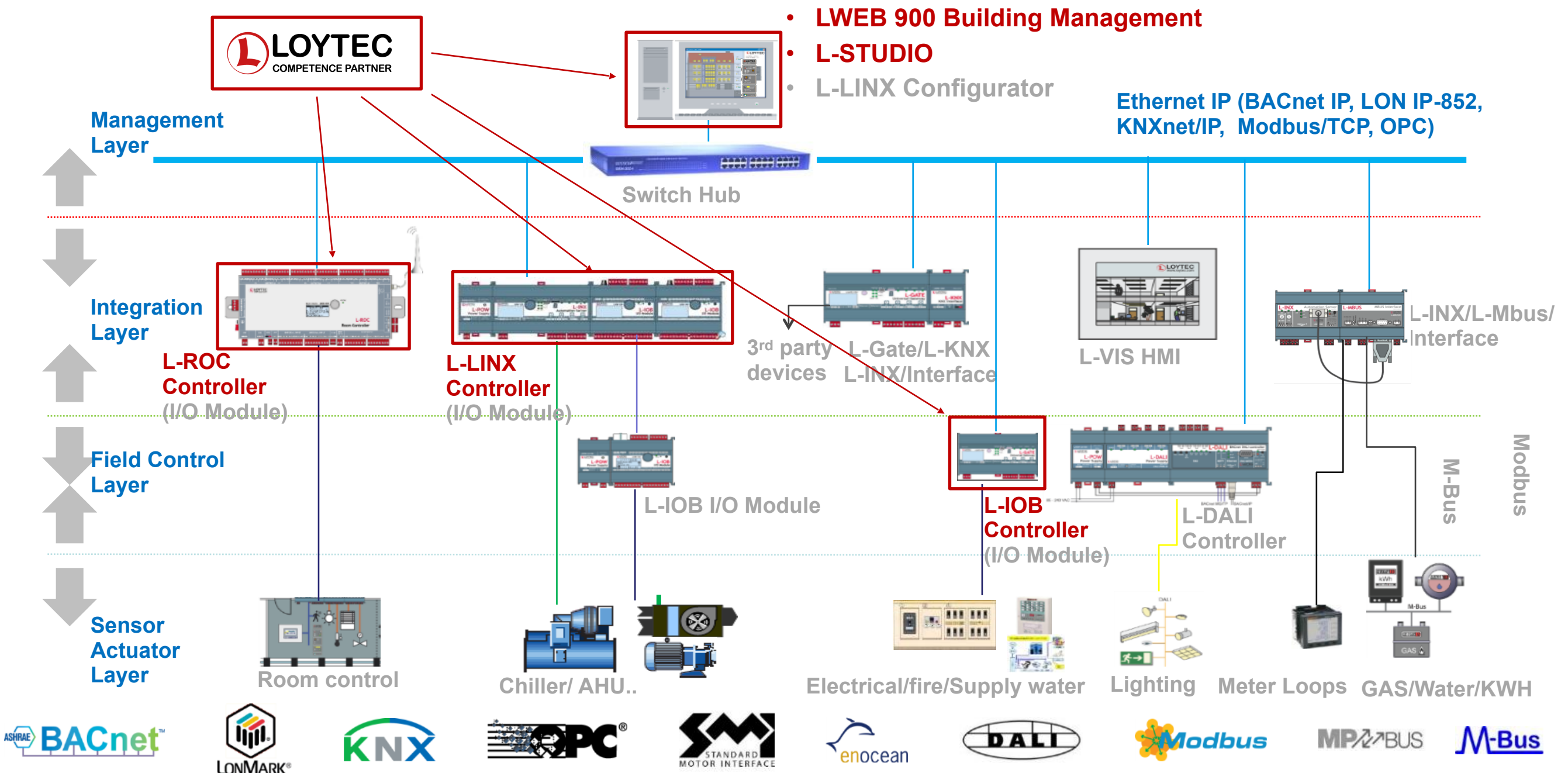


ZDANIA LOYTEC: BMS Business in the process ...





We deliver value throughout entire building's life cycle

Products connected into the systems ...



PARTNERSHIP

Stay with us – Register at www.ZDANIA.com.pl



Strefa LOYTEC Competence Partners

FIRMA

ROZWIĄZANIA

REALIZACJE

BAZA WIEDZY

SPRZEDAŻ

KATALOG

LOYTEC

SZKOLENIA

KARIERA

REALIZACJE I REFERENCJE

ZDANIA ma długą historię. Pierwsza w Polsce spółka typu spin-off Akademii Górniczo Hutniczej w Krakowie

Zobacz katalog wybranych realizacji

Zobacz katalog on-line

BENEFITS

Enhanced value with integrated approach

Keep your Building under Control

Do not loose money: reduce costs – both initial investment and ongoing facility operational expenditures

Increase employees productivity

Capitalize on long-term financial value

Create new revenue opportunities

Enhance building asset value

Improve the customer experience

Build the references and the brand

BENEFITS

Building life-cycle and service

Services we offer:

- Operational services for guaranteed system performance
- Periodic adjustments and optimization to ensure system performance
- Energy and indoor climate analysis
- Programs that enable minimal staffing requirements
- Expert facility consulting

BENEFITS

Energy efficiency services

We find your facility's hidden savings while showing you how to gain control of its energy usage

- Save as much as 30% in utility costs
- Upgrade with programs that pay for themselves
- Align objectives to increase productivity
- Continue savings with strategies and expertise
- Contribute to Green building strategies
- Predictable ROI, sustainable results

BENEFITS

Energy efficiency services

**Offering guaranteed energy savings programs,
Performance Contracting will effectively maintain your facility.**

Performance Contracting

- Comprehensive infrastructure renewal strategies
- Facility auditing and project development
- Performance contracting
- Total savings guarantees
- Finance options for capital improvements
- Enduring performance for building environment systems

RELIABILITY

ZDANIA Facts

- ① Is said to be the industry innovation pioneer
- ① In-house research and development resources
- ① In-house manufacturing and direct sourcing from Loytec production facilities in Austria
- ① Reacts quickly and flexible on changing market demands
- ① For more than 27 years a reliable and assessable business partner for the industry
- ① Relies on long term customer relationships
- ① Supports entire process of building / customer service from audit, through technical optimisation to long term facility management

Good Reasons to work with ZDANIA

- ① LOYTEC and ZDANIA develop all products in-house
 - ① In-house know how from shell design to microchip development
 - ① Use next generation software techniques
- ① LOYTEC and ZDANIA manufacture all products in-house
 - ① High in-house production depth
 - ① Highest level of quality guaranteed
 - ① Highest flexibility
- ① LOYTEC and ZDANIA are well stocked and run own logistic centers
 - ① Warehousing beyond the industry's average
 - ① 99 % of all orders are shipped out of stock within 48 hours
- ① LOYTEC uses open communication protocols
 - ① Guaranteed interoperability to 3rd-party supplier products
 - ① Protection of investments

RELIABILITY

Strong relations with Customers and Partners

- ① System partners trained and certified by LOYTEC via ZDANIA LOYTEC Competence Center
- ① Ongoing advanced trainings, regular trainings provided
- ① Competence Partners offer system
 - ① planning and integration
 - ① installation and configuration
 - ① maintenance and service
- ① Certainty for customers through direct contact
 - ① Technical support by Competence Center and LOYTEC

ZDANIA your Partner in Building Business!

- Optimal technological solutions -
devices for object and superior level -
distributed control systems - room-
level integration - Competence Center
- Dynamic, committed team:
technological and business
competences
- Over 25 years of experience, full
range: from audit, functional concept
and design to implementation and
service

- **The best matched solutions**
- **High energy efficiency**
- **Reliability, certainty, stability**
- **High comfort and quality of
cooperation**
- **profitability**

Thank you for your attention!

Andrzej Siekanski
Supervisory Board Chairman
ZDANIA Buildings Automation
LOYTEC Competence Center
Mazowiecka 25, 30-019 Krakow
Poland

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Fax +48 12 638 05 67
Email: a.siekanski@zdania.com.pl
Web: www.zdania.com.pl

BENEFITS under Control

