

CES OMEGA FLEX

More than locking
and unlocking

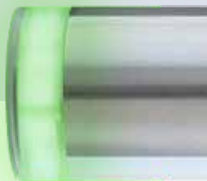
Tailored electronic access control systems



Dipl.-Ing. Richard Rackl, Managing Director,
Alfredo Neumann, International Sales Director

“We believe that quality advice is as important as quality products. This approach and the perfect combination of electronic and mechanical systems are the hallmarks of a genuine CES solution.”

The key to more security and convenience



Our motivation: your security

The sense of security, coupled with the reliability that is our forte. And if your requirements extend to more than simple locking and unlocking a door, our high performance OMEGA FLEX access control system will create the perfect starting point for a tailored security programme.

Taking the next step

The name CES is synonymous with first class access control solutions. This applies to our tried and tested mechanical key systems just as much as for the mechatronic and electronic access control systems that have been part of the CES portfolio for many years. One of these is OMEGA FLEX – a rather smart piece of security engineering that will also assist you in your organisational tasks.

Multi-functionality without compromise

With OMEGA FLEX, problems associated with traditional security systems – such as loss of keys or lack of flexibility regarding access authorisations – are a thing of the past. And yet, OMEGA FLEX is installed just as quickly and easily as a perfectly ordinary locking cylinder. Discover the capabilities of OMEGA FLEX, which go far beyond locking and unlocking.



Compelling security

OMEGA FLEX - the benefits

Combinations

CES is an expert in security engineering, from classic security cylinders through to online controlled locking systems. As such, we are your one-stop resource for any conceivable technical combination of mechanical, mechatronic, or electronic components. The result: tailor-made solutions selected from the widest range of products with maximum flexibility.

Versatility

With OMEGA FLEX, you can swiftly respond to organisational changes such as new or retiring employees, restructuring of your organisation or alteration or expansion of your facility. The system is quickly and easily adapted to the new situation, and extensions are possible at any time.

Secure flexibility

Keys lost from part of a traditional master-key system leads to a security breach, and potentially in a complete replacement of the system, resulting in a costly reinvestment. With OMEGA FLEX, lost keys are no longer an issue: all you have to do is reprogram the locking system.



OMEGA FLEX More than locking and unlocking

Simple installation

With OMEGA FLEX, the conventional locking cylinder is replaced by a mechatronic cylinder. The installation is the same and no additional wiring on the door is necessary. This means reduced installation time and cost.

Flexible integration

OMEGA FLEX can be very easily combined with existing LEGIC or Mifare based security applications. The already existing employee keys and identity cards can then also be used for functions such as access control, time recording or even cashless vending.

Flexible combinations

Whether you need a highly complex or a very economical access control system – OMEGA FLEX will provide you with the right solution. “Online”, “Offline” and “V-Net” are three programming variants developed on the basis of practical applications and can also be used in parallel within one and the same locking system.



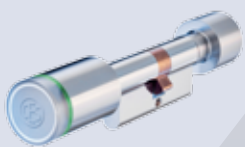
OMEGA FLEX system components

Locking media

All CES media are compatible with the current standards Mifare and LEGIC. This applies to shape, type and the usability in new or existing systems.

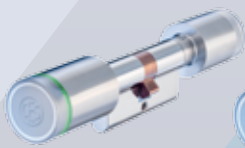
Locking components

Knob cylinders



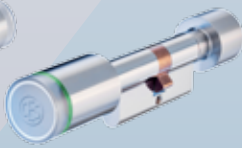
Double knob cylinder

Various standard types and variants with optional latching function



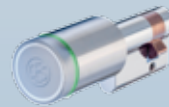
Dual cylinder

For access from both sides with authorization identification on either side



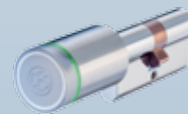
Panic lock cylinder

For use on escape routes – the cam is always returned to the correct position



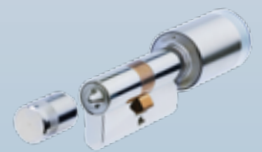
Single knob (half) cylinder

For locks of switching equipment or as a key-operated switch for roll-up doors, roller gates or lifts



Dummy cylinder

Dummy on the inside, for doors that must not be locked without special authorization, with optional panic function



Dummy cylinder with locking assistance

For manual locking from the inside

Administration/IT

Access control software CESTronics Suite

The CESTronics Suite software comes with flexibility of use and user-friendly applications from simple small offline systems to complex online systems. The user immediately feels at home in the graphical user interface and can easily map even complex patterns in the locking plan screen.

Thanks to the integrated database and a smart licencing policy, extensions and functions can be adapted at any time with just a few clicks.

ONLINE

OFFLINE

V-NET



Combinations

The number of OMEGA FLEX system components were selected to cover virtually every situation, so from an engineering perspective, the design freedom is enormous. Individually planned and installed, every OMEGA FLEX component will convince the users by its functionality and user friendliness.

Grow with the your requirements

OMEGA FLEX is like a mirror of its users: you can start with a single door in an offline arrangement and then add other doors, departments, buildings or branch offices. As the requirements grow, you can easily move on to an online system. And again you will find that with OMEGA FLEX, the options are not specified by the system but by the user.

All from CES

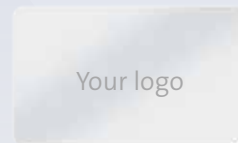
All core components of the OMEGA FLEX system are manufactured by CES in Germany. This includes the locking components as well as the development of the software. So when it comes to service and spare parts, you always have a single point of contact. After all, it takes a reliable partner at your side to really feel secure.



CES combination key/CES key fob



SlimLine versions



ID card



Mifare Classic 1k and 4k
ISO 14443, DESFire EV1



LEGIC prime
LEGIC advant in line with
ISO 14443 and ISO 15693

Wall terminals



Compact design



Discrete design, reader outside, control unit in the protected area



Selection:
Telecom Behnke, Gira, IP55
and many more

The wall terminals are available in the housings of various standard switch ranges.

Fittings



Narrow Intelligent
Electronic Shield (IES)

For narrow stile/
framed glass doors



Broad Intelligent
Electronic Shield (IES)

For retrofitting wooden
doors etc.

Keypoint/Update Terminal



For updating access authorizations on locking media (V-NET)

Access-Point/Repeater



For the wireless online programming of up to 10 locking devices

Desktop Reader



For reading and programming locking media

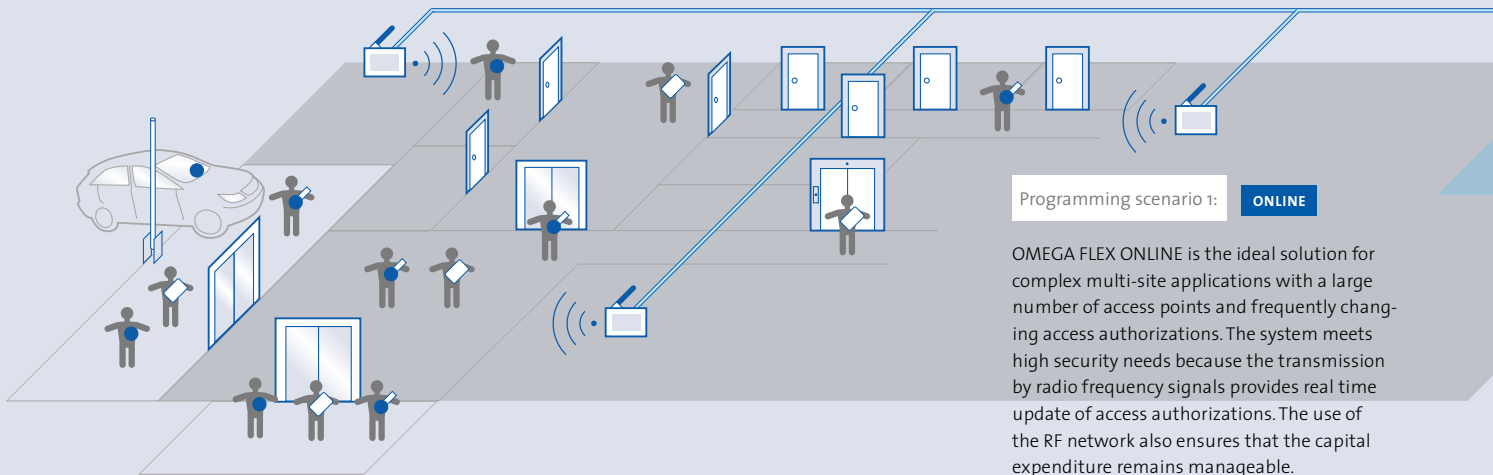
RF-Stick



For the wireless offline programming of locking devices

ONLINE, OFFLINE, V-NET

The correct solution for every application



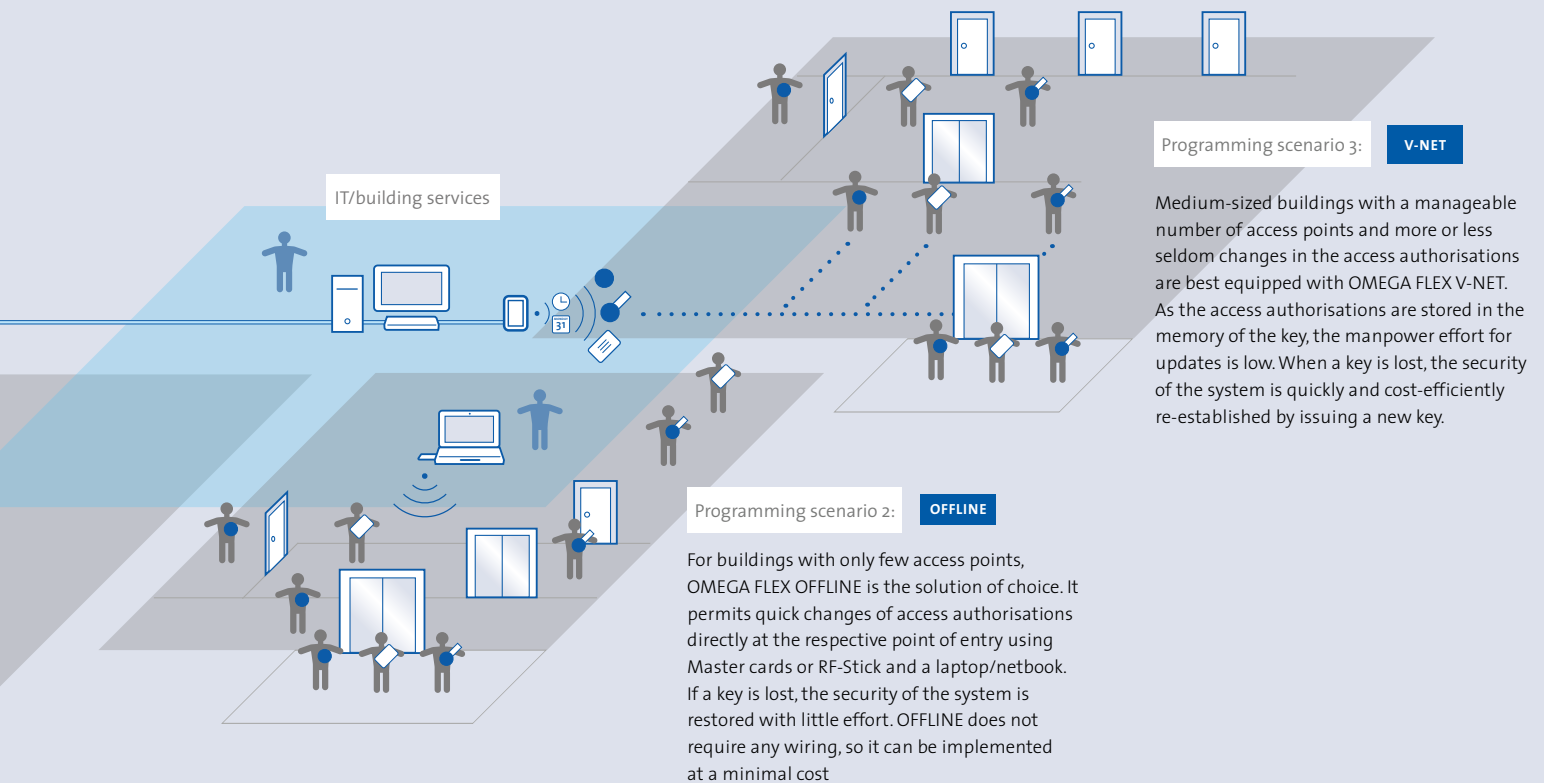
Flexibility and user-friendliness were prime considerations in the development of the OMEGA FLEX software by CES. The fact that this software suite is an in-house development provides an important benefit: all extensions, modifications or updates are implemented via a single point of contact with perfect knowledge of all the aspects.

With the straight-forward OMEGA FLEX software, even complex arrangements involving several branches or different clients in the same building are readily implemented – no special prior knowledge or training is required.

Getting started is easy: upon delivery, all locking components and locking media are already integrated in the OMEGA FLEX database – all you have to do is create the links.

Whether a single-user version or a client/server solution, whether remote or V-LAN: with the OMEGA FLEX software, integration is simple.



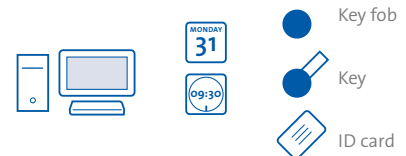
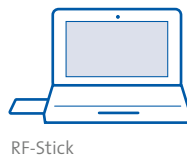
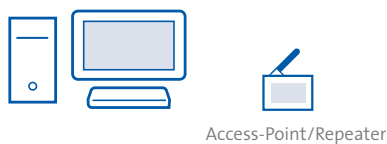


All systems shown here are compatible with:

LEGIC
prime
advant

MIFARE
Classic
DESFire

System overview:



Online

Authorisations stored in the locking device
Programming via RF network with Access Points, also in real time

- Simple installation
- No wiring at the door
- Quick response to a lost key
- Up to 10 doors per Access Point
- All events visible online

Offline

Authorisations stored in the locking device
Programming with Master cards or RF-Stick and netbook

- Authorizations in the locking components
- Convenient programming via radio
- Use of standard laptop/netbook possible
- Printable programming list for ease of use
- No network required

V-NET

Programming of authorisations on the locking media

- Flexible organisation
- Minimal programming effort
- Simple, centralized key issue
- Low administration costs
- No network required
- Optional with Keypoint/Update Terminal

Hard exterior, smart interior

Electronic locking solutions from CES

Cylinder

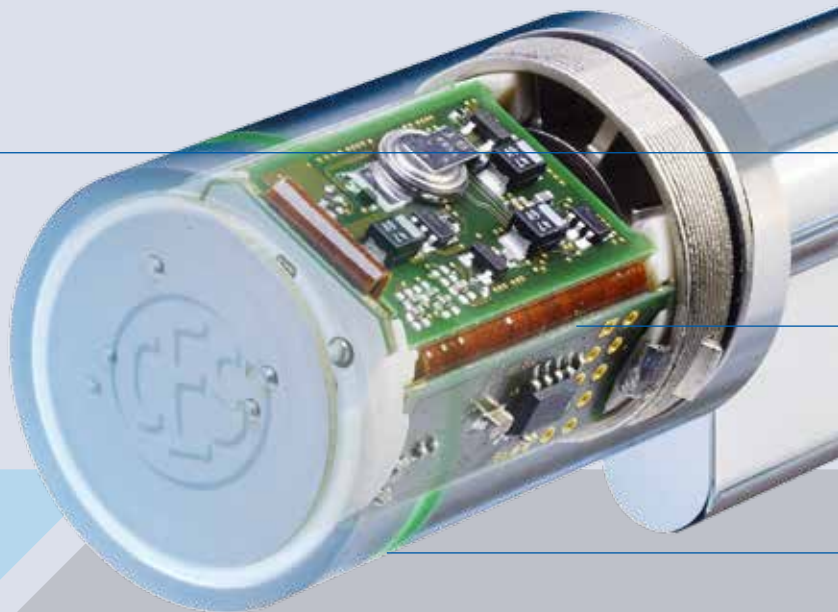
Wear-resistant materials
Withstands highest stresses, strains and loads
High-quality construction for a long useful life

Security

DIN/EN 15684
NEN 5089 SKG***
VdS 2156 BZ+
Fire protection EN 1634-1 (T90)

Integrated battery

No wiring at the door required
Thousands of operating cycles
Simple battery replacement



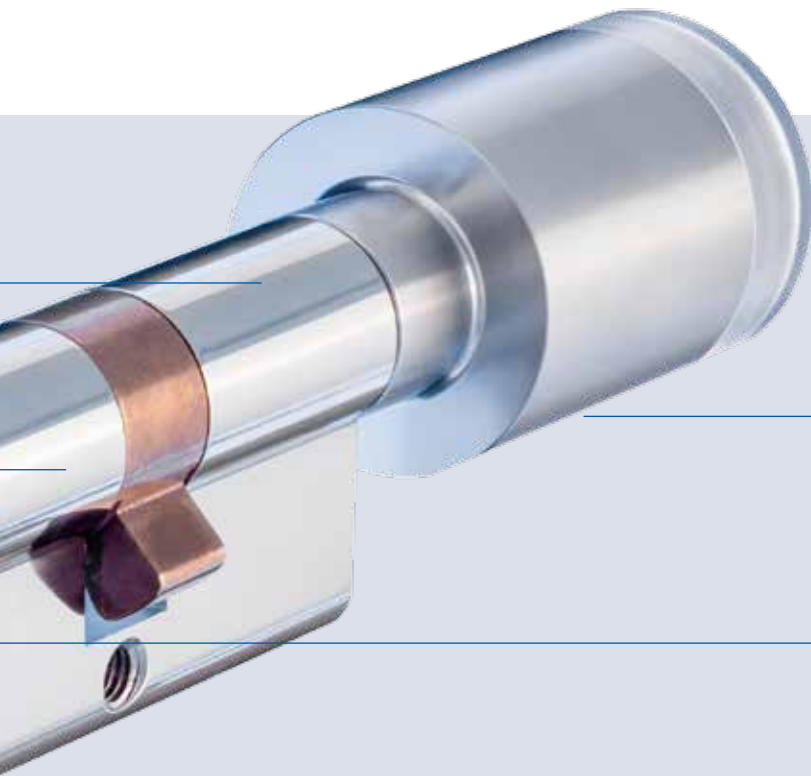
NoTime variant (Offline)

The NoTime variant is the most basic design of an electronic access control without defined time windows and without recording events.



Time variant (Offline)

In addition to mere permitting or refusing access, the Time variant allows limiting the time during which access is permitted and the recording of access events exact to the second.



Design

High-quality materials
Functional
Optimised surface feel
Timeless

Electronics

In-house development by CES
State-of-the-art components
Made in Germany

Actuation indication

Visual red/green signal
Audible sound when activated



Online variant

Building on the Time variant, the Online variant allows changing the programming at any time via the RF network. Access events are directly transmitted to the control centre, and lost keys can be disabled within seconds.



V-NET variant (virtual network)

As an alternative to the Offline variants, the V-NET variant stores the authorisations on the locking medium. This reduces time to change access authorisations, and lost keys are automatically deleted by the successor.

Mechanics + Electronics

Benefit from perfect combinations



The interaction of mechanics and electronics

A key benefit of CES access control systems is the perfect interaction of mechanics and electronics. This is also reflected in the variety of available keys and the options for combining them. In more ways than one, this flexibility is the key to maximum individuality for a large number of applications. The result is

only determined by your demands, not the technology. And this is complemented by the strengths that are typical for CES: highest reliability, simple fitting and installation and maximum operator convenience.



Conventional locking systems

The modular family of the DU/TDU key section series satisfies the complex demands of upscale industrial buildings. Lateral pins scanning the contour of the key section and the undercut present an effective protection against unauthorised key copies. Optional features such as the swivelling lever and the spring-loaded anti-drilling and anti-pulling protection multiply the security. In addition, the TDU key section offers trademark protection.

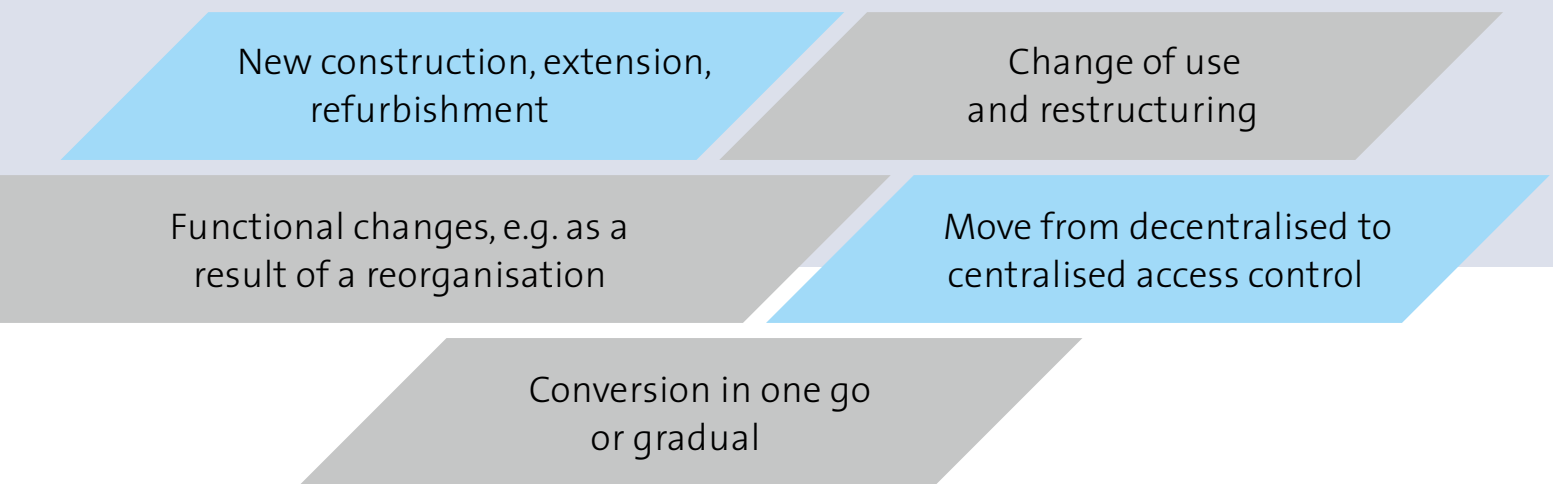
Vertical reversible key system

The vertical reversible key system WD offers a high level of convenience. The optimized key tip ensures an accurate and convenient insertion of the key. Picking tools do not stand a chance against the multi-paracentric profile. Various active locking elements and the actively scanned double undercut offer an effective technical protection against unauthorized key copying.

Continuous Change

OMEGA FLEX prepares for the future

The use of a building may be subject to many changes. A good access control system must be capable of an adequate response – fast, straightforward and cost efficient. With OMEGA FLEX you are well prepared to react to changes of all kinds:



Rest assured OMEGA FLEX is flexible enough to adapt to your needs

Individual requirement are the baseline

Before we plan your new access control system, we listen carefully. Only if we know what you expect from your new system can we design a solution that exactly matches your needs. We will present specific proposals and outline all related benefits but also any disadvantages that might be involved. We believe that providing this fair advice will ultimately be for the benefit of everyone involved.

Flexibility ensures a decisive advantage

In the OMEGA FLEX system, all components are compatible with one another. This may sound obvious – but to protect your investment, it is invaluable. You can start the system as a small offline solution with a single door and then add new rooms or even whole buildings at any time. And you can always move on to an Online or V-NET version.

Focus on cost-efficiency and functionality

Easy and cost-efficient extensions are a specific design feature of OMEGA FLEX. One example is the integration of rooms that so far have been locked in the traditional way: the existing locking cylinder is simply replaced by an OMEGA FLEX cylinder which is then incorporated in the system – no alteration work, no additional wiring, no hidden costs.



Council facility

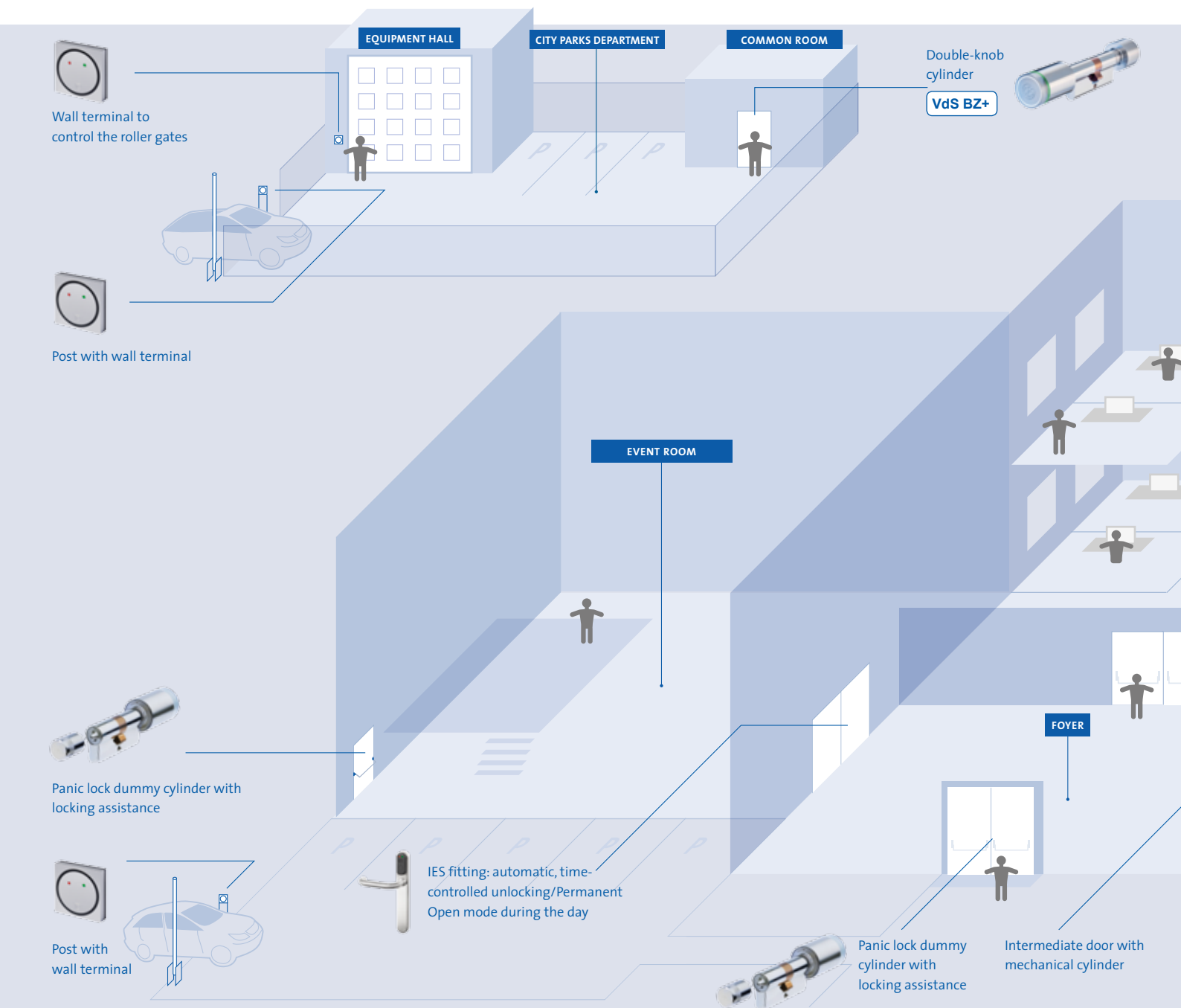
Town hall, internal and external areas

The task

About 100 people work in the town hall. The building has various external doors. Certain areas, such as the municipal library and the event room, are publicly accessible during defined times. In addition, external buildings accommodating the city parks department and the power distribution facilities of the municipal utility company must be included.

The solution: OMEGA FLEX Offline

The system is programmed and administered offline by the building services department. The central control computer is located in the central IT department inside the town hall. The facility technicians program the access control system with netbooks and RF-Sticks that are linked to the central control computer via a client/server software.



Town hall

- External doors are fitted with panic bars (escape routes), therefore equipped with OMEGA FLEX panic lock dummy cylinders with locking assistance
- During the opening hours of the town hall: doors are switched into Permanent Open mode by the facility technicians
- Daytime: dummy cylinders prevent any unauthorised locking from the inside (e.g. by visitors)
- Evening: doors are locked from the inside with the locking assistance

Car park access drive

- OMEGA FLEX wall terminal opens barrier to allow authorized persons the access to the car park

Power distribution facility

- Highest security requirement, therefore equipped with OMEGA FLEX cylinder versions with anti-drilling and anti-pulling protection according to VdS 2156, BZ+
- Dummy cylinders prevent unlocking of the cylinders from the inside by persons reaching in or overcoming the outer fence barrier
- Building itself equipped with double-knob cylinders with anti-drilling and anti-pulling protection

Plant rooms and offices

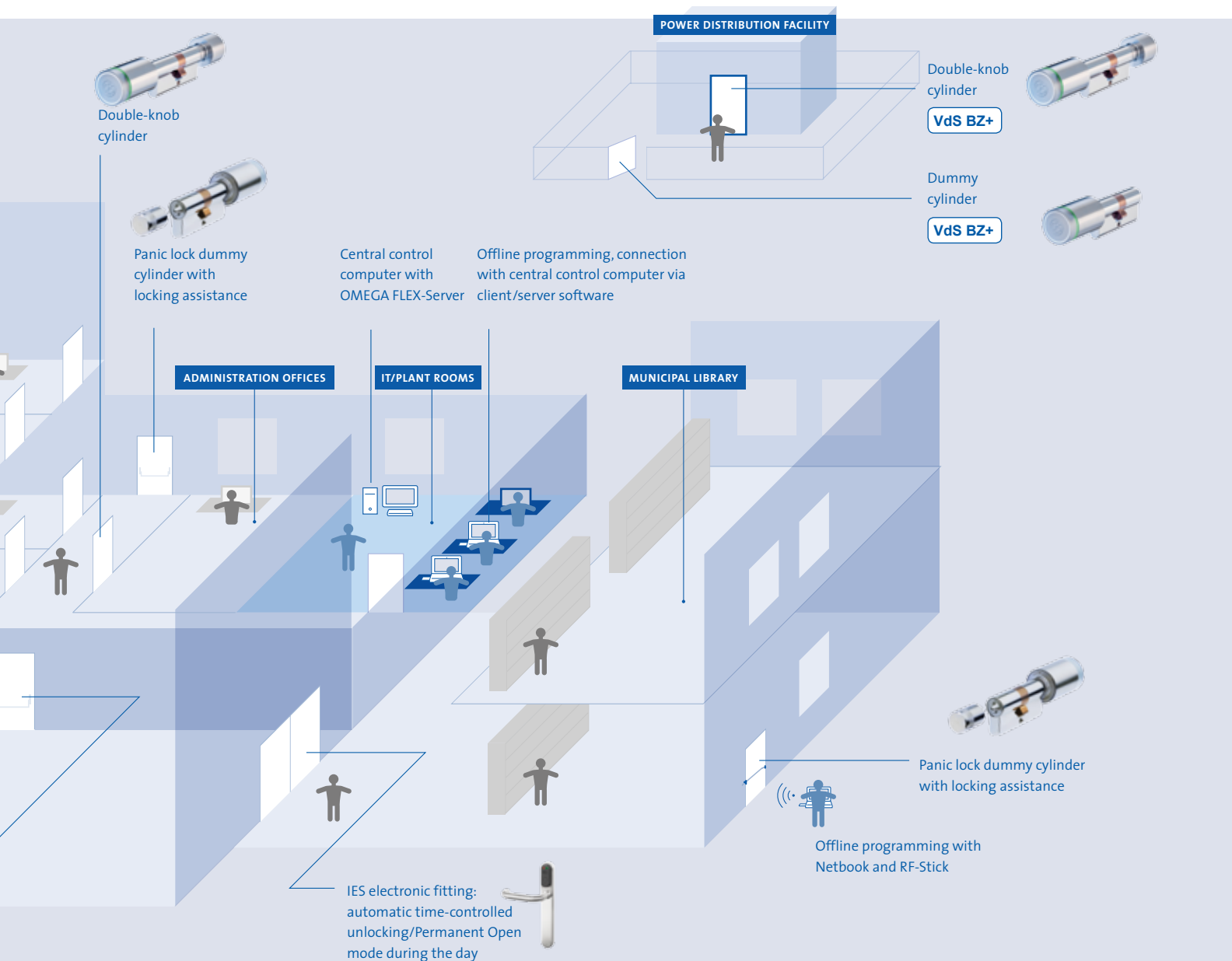
- OMEGA FLEX double-knob cylinder
- Unlocking from the outside by authorised electronic locking media
- Locking from the inside by mechanical inside knob

Event room and municipal library

- OMEGA FLEX IES electronic fitting with set unlocking time profile
- When open for public business: fully automatic unlocking of the doors
- Access for visitors without locking media: simply by actuating the door handle
- After the opening hours: fittings are automatically switched back into a condition in which only town hall employees having the right key can open the door

City parks department

- Access to the premises and equipment room fitted with OMEGA FLEX wall terminals
- Opening only possible by employees with the authorized locking media
- Common room for employees equipped with OMEGA FLEX double-knob cylinder with anti-drilling and anti-pulling protection class VdS 2156 BZ+



Branch operation

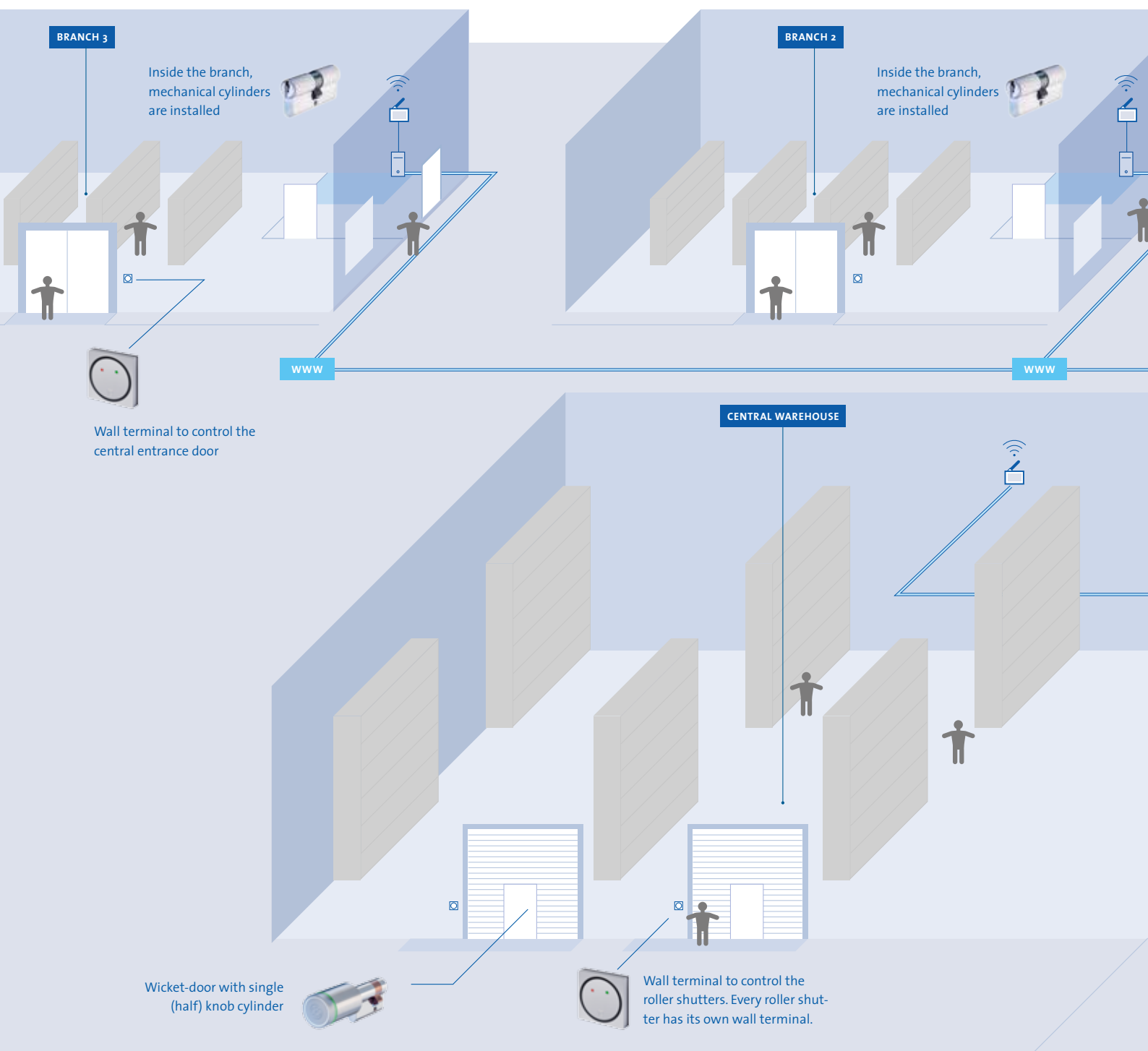
National DIY chain

The task

A national distribution chain of 400 do-it-yourself branches with about 5,000 employees wants to manage its access control system centrally from its headquarters. For companies of this size, changes in the access authorizations are a matter of course. One requirement is that a lost key is immediately and effectively blocked – even over a distance of 500 km. New employees in the branches are handed their key in advance but the key will only become operative on their first working day.

The solution: OMEGA FLEX Online

The central control computer with the database is located in the company headquarters. Every branch has an online connection with the headquarters via the internet and Access Points. All locking components of all branches are programmed centrally.



Headquarters

- Sliding door with OMEGA FLEX wall terminal
- At the start of business hours: door is automatically unlocked under a time profile regime. Access is granted under motion detector control without presenting an ID card
- Before and after business hours: access only with company ID card

Central warehouse

- Access door to the central warehouse with OMEGA FLEX double-knob cylinder
- Only warehouse employees have access during the working hours

Access to the central warehouse from the outside:

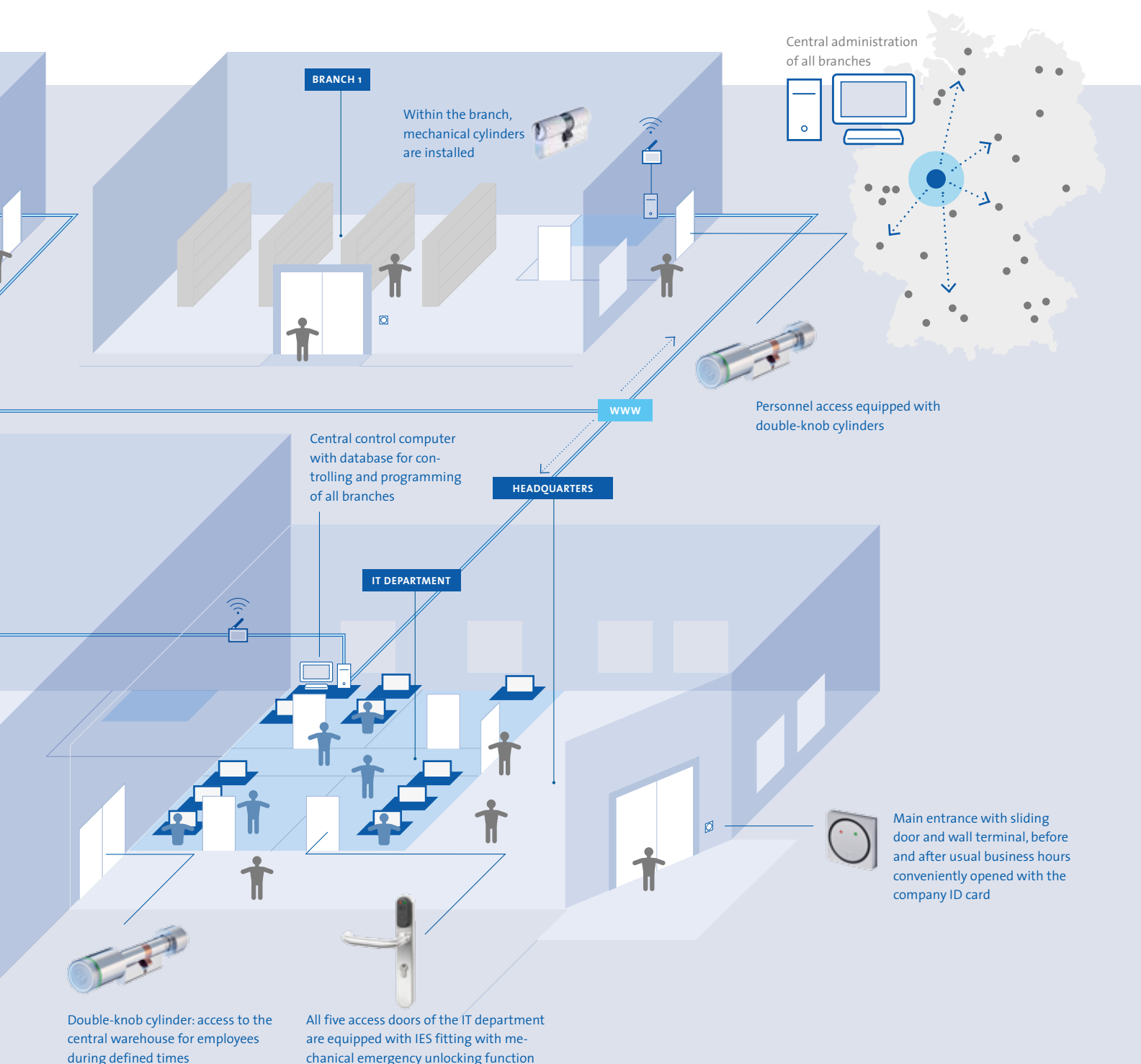
- OMEGA FLEX wall terminals allow access for fork lift trucks and other vehicles through automatic roller shutters
- Access for pedestrians is controlled by OMEGA FLEX single (half) knob cylinders in the wicket-doors that can only be unlocked with an authorised locking medium

IT department (25 workplaces)

- Access-Point establishes an online connection for all IT doors. All five access doors are equipped with an IES fitting with mechanical emergency unlocking function
- In case of a low battery: operation of the IES fitting is with mechanical key

Branch

- Staff access controlled by OMEGA FLEX double-knob cylinders
- Nationwide, all doors can always be unlocked under remote control from the headquarters
- All access events are recorded and transmitted online to the headquarters
- Spare keys without locking function are stored in a local safe; they can be authorised at any time from the headquarters
- The sliding door is switched by an employee into Permanent Open mode via a wall terminal. During the day, the sliding door operates under motion detector control. In the evening (after the customers have left the store), the employee switches the door again into Locked position; the door remains closed.



Office building

Joint occupancy, dual use of main entrance and underground carpark

The task

An office building is shared by an advertising agency and a law firm which both use the main entrance and the underground car park. The office rooms are used and managed by the two tenants independently from one another.

The solution:

OMEGA FLEX V-NET virtual online

The system is programmed by a professional CEStronics partner. The two tenants neither need any programming devices nor any network. Using a read-write device with appropriate software, the authorisations are written on the locking media, in this case ID cards.

New employee ID cards are activated by the tenants via mouse click and can be used immediately. If an ID card is lost, a new ID card is created. With the first use of this new ID card, the previously lost ID card is immediately deleted.

Main entrance (ground floor)

- OMEGA FLEX wall terminal as a module of the intercom
- Main entrance protected with an automatic door opener during the day
- Employees unlock the door with their authorised ID card
- For visitors, the door is unlocked via the intercom
- In the evening, the mechanical locking cylinder is locked manually

Advertising agency (ground floor)

Entrance

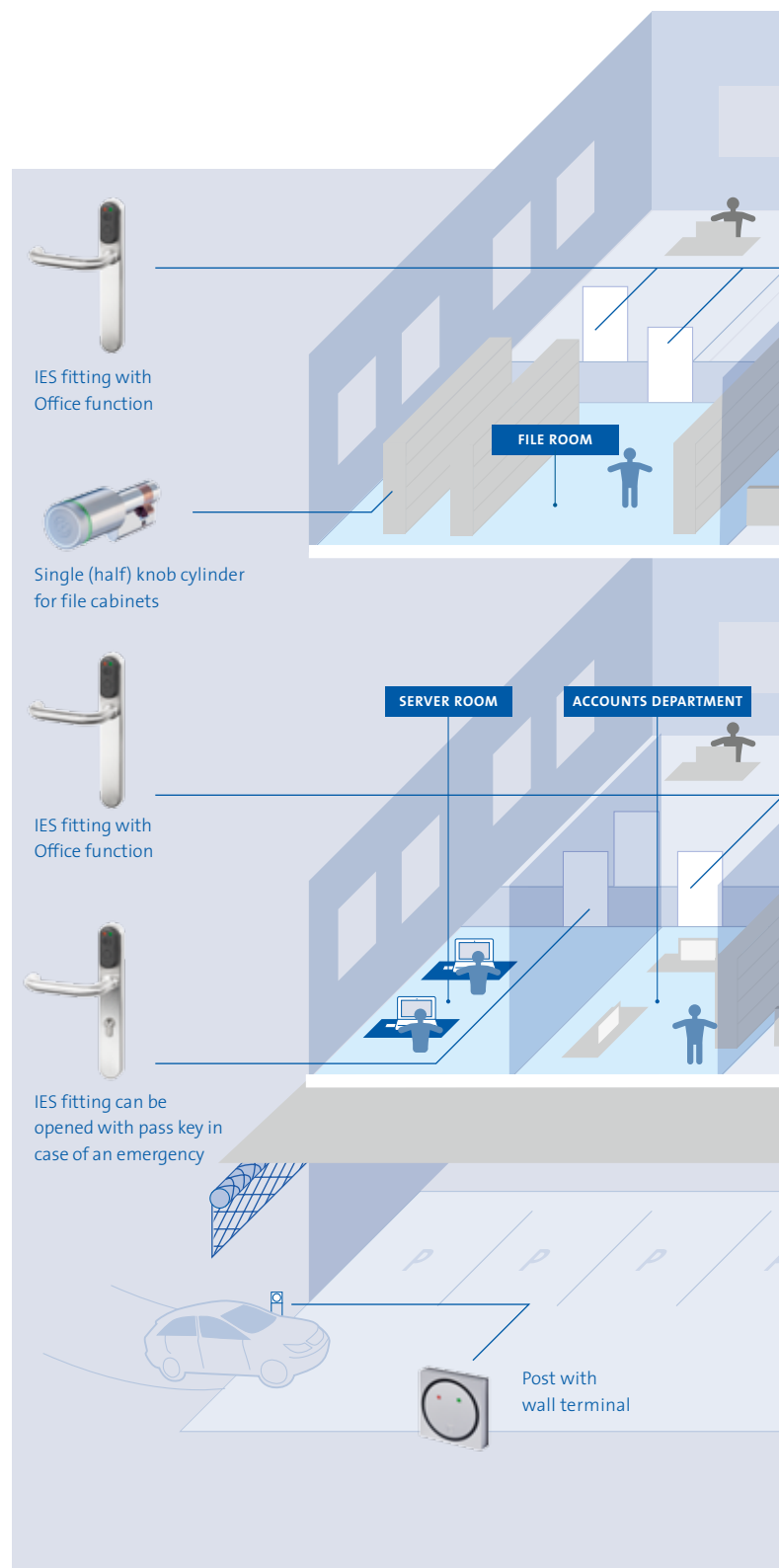
- OMEGA FLEX double-knob cylinder class VdS BZ+ with burglar-proof fitting
- Unlocking from the outside only with an authorised electronic locking medium
- Unlocking from the inside with mechanical inside knob
- Door is unlocked in the morning and stays unlocked for visitors all day (can be seen from the reception desk)

Server room

- IES fitting, unlocking only with authorised ID cards, mechanical cylinder can be opened with the pass key in case of an emergency
- Permanent recording of events

Accounts department

- IES fitting with Office function
- Start of work: the first employee to arrive switches the door into Permanent Open mode using his or her ID card. Subsequently arriving employees can enter the room without using their ID card during the working hours
- End of work: the last employee to leave locks the door again, which can now only be opened again with an authorised ID card



Offices

- Mechanical locking cylinder

Law firm (upper floor)

Lift

- Lift request from ground floor and underground car park via wall terminal (integrated in the panel)
- Lift can only be requested by law firm staff
- For visitors, the lift is sent down to the ground floor by the receptionist

Offices

- IES fitting, can only be unlocked with authorised ID card
- If required, Permanent Open mode possible (via Office function)

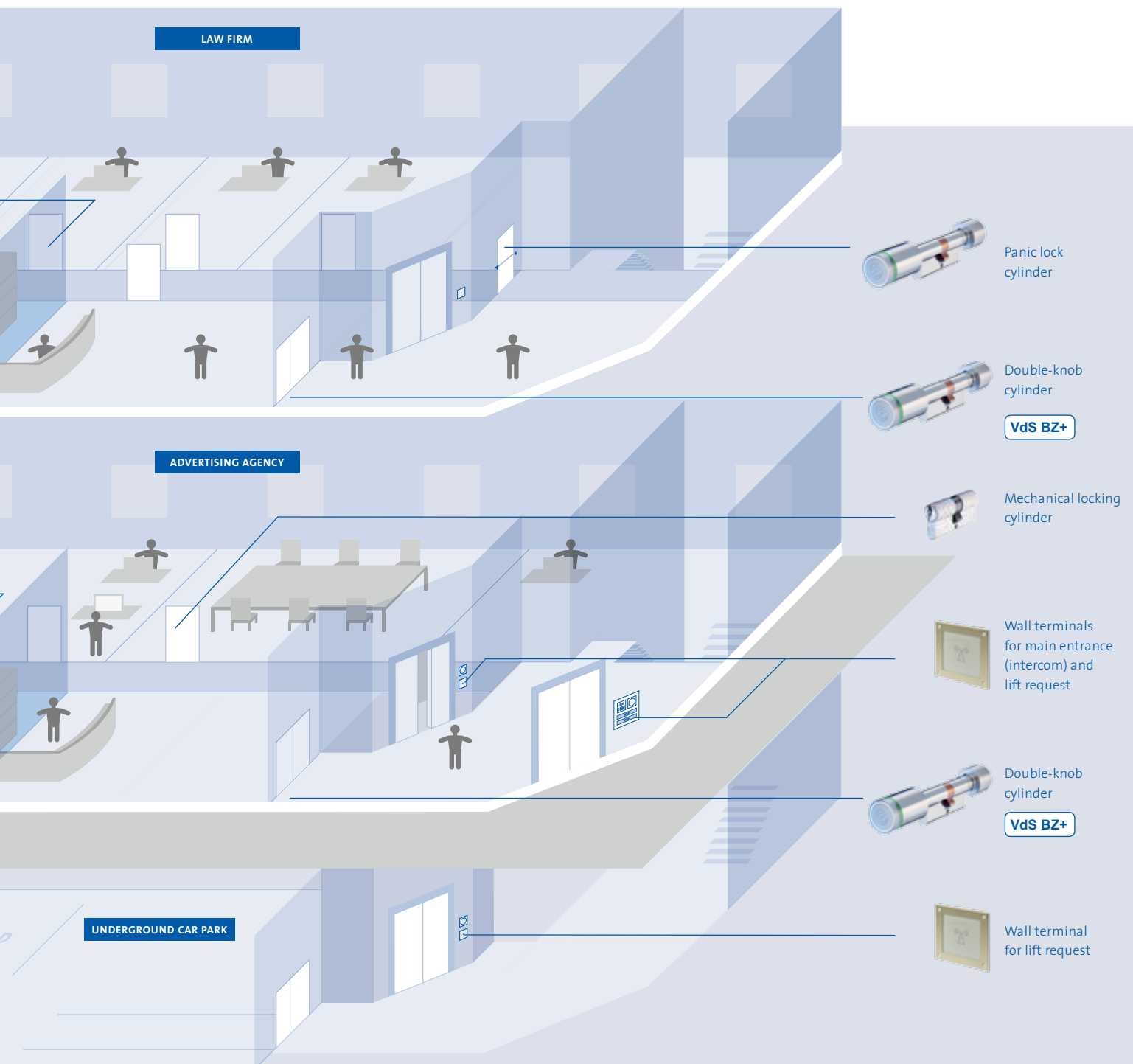
File room

- IES fitting, can only be unlocked with an authorised ID card
- Electronic single (half) knob cylinder on three file cabinets, can only be unlocked with authorised ID card
- Permanent recording of events
- Cabinet use can be logged by downloading from the cylinder

Underground car park

Basement doors and underground car park

- OMEGA FLEX wall terminal integrated in post
- Roller shutter can only be opened by employees of the two tenants presenting their ID card at the wall terminal
- Lift can only be requested by authorised staff using their ID card



School

with school hall and gym

The task

A school places a variety of demands on an access control system: safeguard against risks from lost keys, multiple use of the school hall and the gym, prevention of pupils locking themselves in and violence in the classrooms.

The solution: OMEGA FLEX Offline / motor cylinder online

The system is programmed and managed offline by the caretaker. The central control computer is located in the caretaker's office. The caretaker programs the locking system with netbook and RF-Stick. Both the caretaker's office and the caretaker's private accommodation are connected with the central control computer via a client/server software.

Administration area

- Entrance: dummy cylinder with locking assistance
- Unlocking in the morning: by caretaker or authorised teacher for the duration of the school hours; doors can be opened by anyone, abuse by students impossible; caretaker can lock with the locking assistance
- Access to rooms with confidential data (teachers' room, secretary): protected by IES fittings, only authorised access possible
- First aid room locked mechanically, can be unlocked at any time by a teacher or the caretaker with the appropriate key
- Caretaker's office: protected by OMEGA FLEX double-knob cylinder, can only be unlocked by the caretaker or his/her substitute

Main access to the teaching room wing

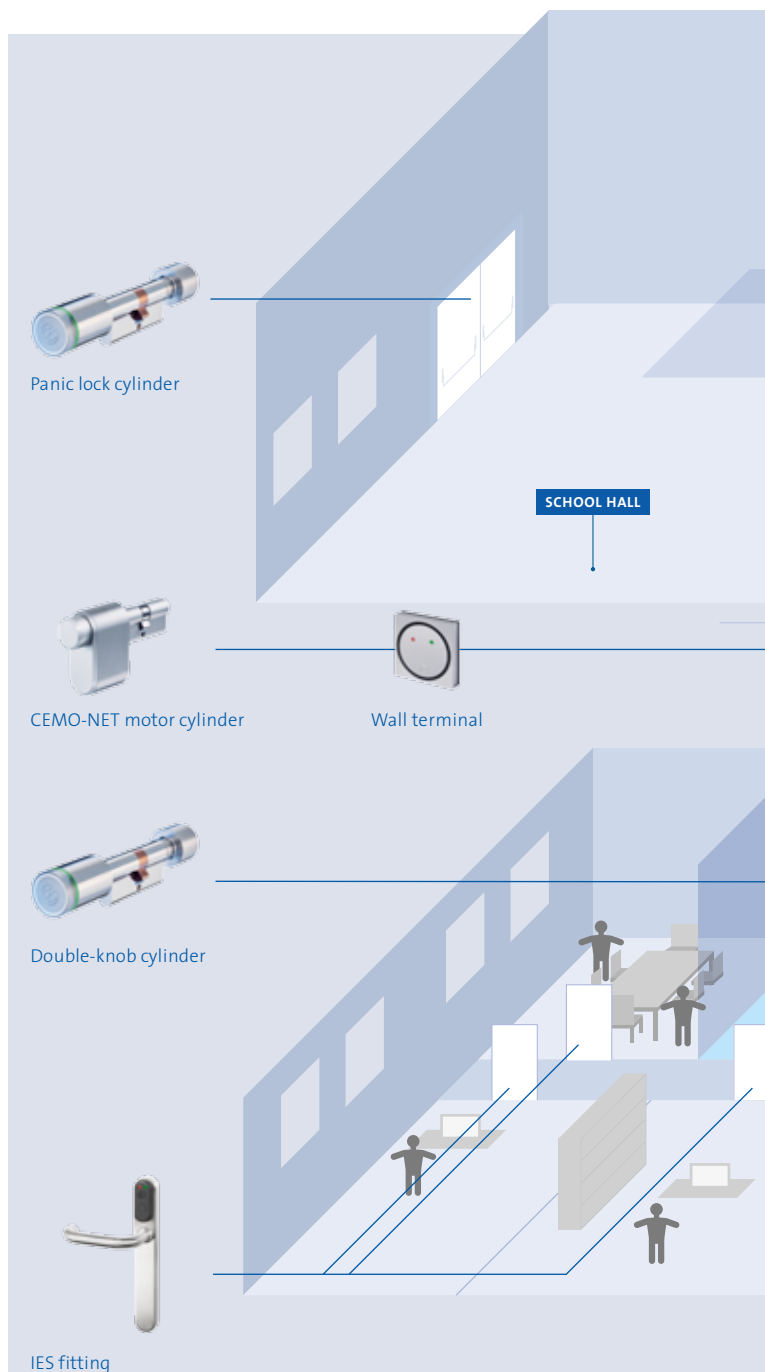
- Protected by dummy cylinder with locking assistance
- Unlocking in the morning: by caretaker or authorised teacher for the duration of the school hours
- Locking from inside: only possible with locking assistance, abuse excluded

Classrooms

- Classroom door: protected by mechanical "classroom function" knob cylinder
- Unlocking from the outside: only possible with mechanical key; door remains unlocked during classes
- Alarm situation (danger on the school premises): by a simple rotation of the cylinder knob, the door can be locked from the inside without a key; door can only be opened again from the outside with an appropriate key
- Protection against abuse (student wanting to keep the door locked from the inside): thanks to a special coupling in the cylinder, a teacher or the caretaker can disable the knob function with a key at anytime and open the door from the outside

Chemicals storage and chemistry classroom

- Connecting doors: protected by dual cylinders, can only be locked/unlocked on either side with electronic authorisation. All access events are logged, use of hazardous substances only possible for authorised persons or under their supervision
- Classroom: protection of the door with mechanical "classroom function" knob cylinder (like the other classrooms)
- Double-knob cylinder protects chemistry storage room from the corridor side

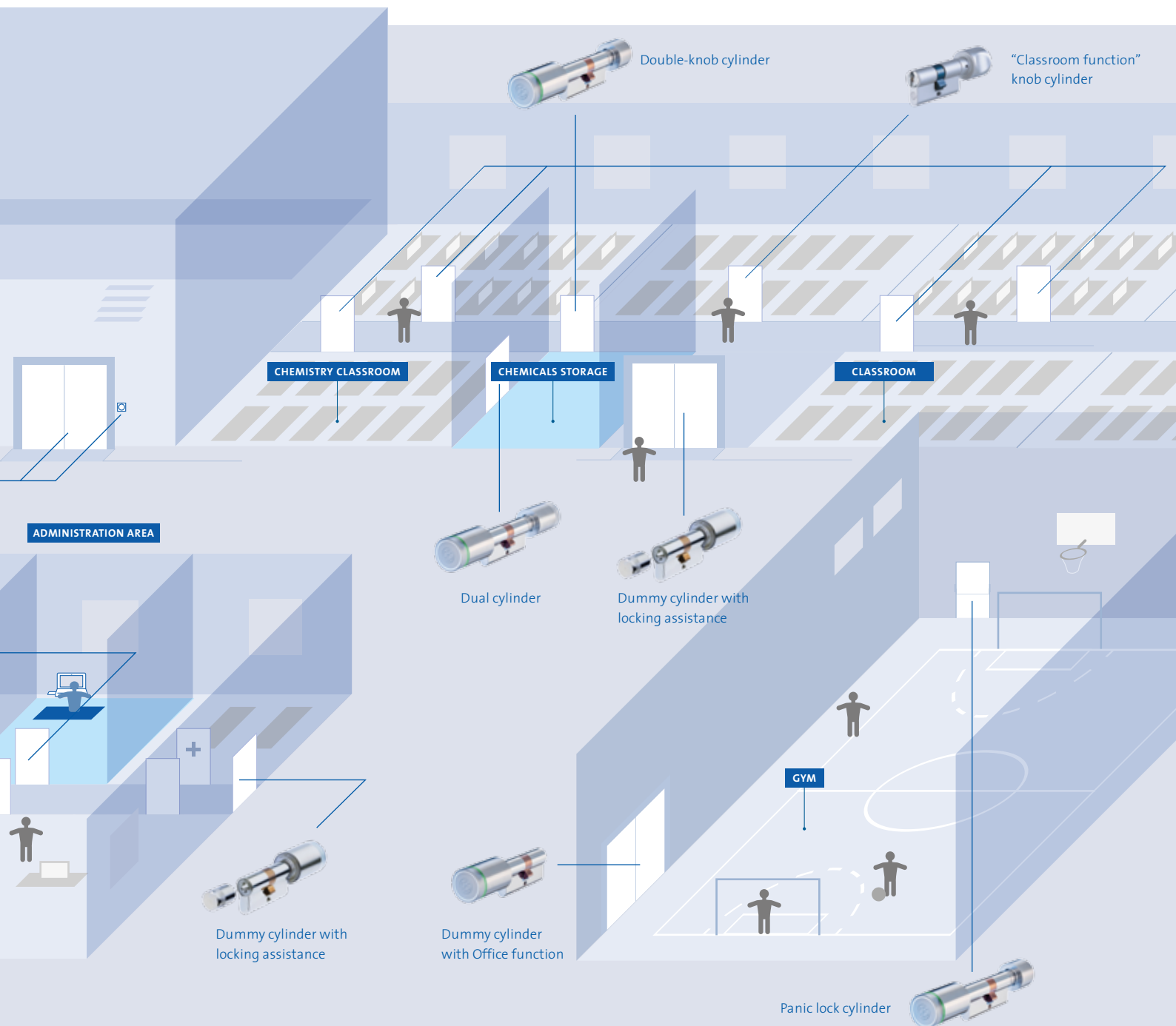


Gym

- Access: local clubs are provided with electronic ID cards with access authorisation for defined times and defined locations according to the occupancy schedule
- Protection of the door by a dummy cylinder with Office function; unlocking for certain periods, absence of a knob prevents abuse from the inside
- Trainer function: trainers have an ID card authorization that additionally comprises an Office function; this permits a one-time unlocking of the door at the beginning of the training period, door can be opened by anybody for a period of e.g. 30 minutes, and then is locked again so that no access from the outside is possible
- Emergency function according to EN 1125 supported by panic lock cylinder; door can always be opened from the inside.

School hall/event room

- Entrance: protection by CEMO motor cylinder, locking/unlocking is authorized via wall terminal or remote controlled from the caretaker's office or private accommodation
- Locked/Unlocked status can be verified online at any time
- Emergency exit: protection by panic lock cylinder for an emergency exit door according to EN 1125; door can be opened from the inside at any time, from the outside only with an authorized locking medium



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