Photo: AdobeStock / BullRun

GEMOS access

BKS

BUILDING MANAGEMENT SYSTEMS

GEMOS access – the access control system for any requirement

Securing technology for you

G-U **BKS** **FERCO**

Modern technology – easy to use, efficient and safe.

Gretsch-Unitas group

With its forward-thinking innovations,
the Gretsch-Unitas group has long been shaping the market and setting pioneering standards. Convenience and security are given the highest priority when it comes to opening and closing doors.

Quality for more than 100 years

For over a century, the Gretsch-Unitas group produces total solutions which focus not just on individual products but on the project as a whole. The elements of perfected mechanics and intelligent electronics complement each other perfectly in automatic entrance systems.

More than just products: planning, implementation, service

We assist you in all phases of implementing your individual entrance solutions. Short distances and fast, reliable service make technical and cost-optimised solutions possible, perfectly in tune with your project-specific requirements.

System solutions as a whole

The latest market requirements are met with our extensive pallet of new mechanical and electronic products in unrivalled quality. Our focus, however, is not just on the individual products, but instead on the creation of complete solutions that meet the latest requirements.

Contents

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One system for different requirements

With GEMOS access it is possible to implement a wide range of security features for doors – using just one system. Whether access control in combination with escape route technology or electronic locking technology is required, all systems are connected with each other directly at the door. Integration into an advanced physical security information management system and pairing with third-party systems is also possible.

A SYSTEM FOR SMALL REQUIREMENTS

Are there only a few doors in the first instance? GAC, the fully-fledged flagship controller, is also used for entry-level systems. With the GEMOS access software, only the periphery needs to be connected and configured. A separate server or client installation is not required. If doors are subsequently added and the system expands, the GAC can be used in an extended configuration.
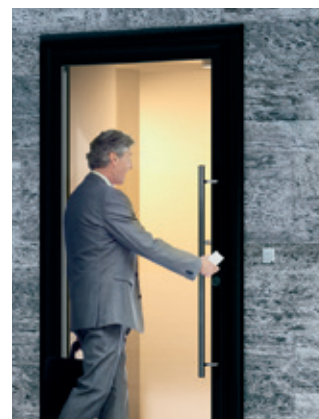
A SYSTEM FOR COMPLEX REQUIREMENTS

If the project consists of high-availability complex access control systems, which are also incorporated into building management systems for example, the GAC controller with corresponding configuration features is fully equipped for this. All functions related to door security, such as bus redundancy and multi-door sluice systems, are fully supported.
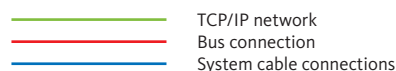
GEMOS
access

SYSTEM OVERVIEW

The design of GEMOS access is simple, well-structured and secure. The network configuration shown here is an example of the classic structure. The door module is located at the access point exactly where access control takes place. However, GEMOS access can be adapted to any requirement and can master all possible variants – central, local or mixed.

- Central (storey distributor/IT technology area) – all bus components per segment leading towards central controllers up to 1000 m from the access point

- Local – door module at access point

- Mixed – central controller/modules and local – according to individual requirements

- Optional bus redundancy with second bus controller
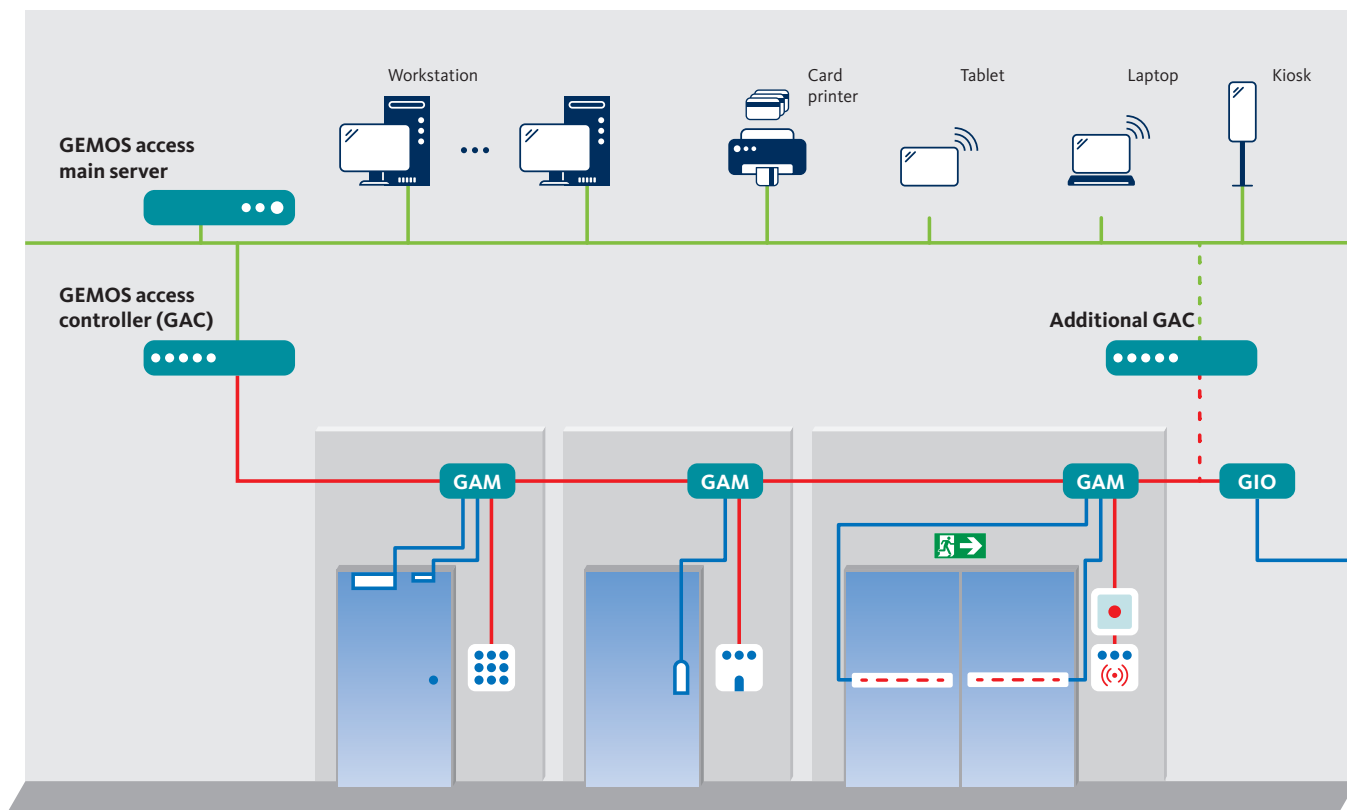
Abbreviation	Meaning
GAC	GEMOS access Controller
GIO	GEMOS Input Output Module
GAM	GEMOS access Module
MGAC	mini GEMOS access Controller
GEMOS	Security information management and organisation system

————— TCP/IP network
————— Bus connection
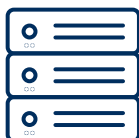————— System cable connections

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Intelligent door and escape route control, intrusion detection and locking technology

The application options of GEMOS access extend from offline access control systems for small applications to modular and fully integrated parts of building, security or hazard management systems.

EXPERTISE AND EXPERIENCE

GEMOS access has proven itself as a sophisticated access control system in many successfully implemented projects. All gained and future experiences are continuously incorporated into the further development of the system. The direct feedback of our customers makes GEMOS access even more user-friendly and guarantees that any customer requirement can be met. The GEMOS management system was the starting point for GEMOS access, and satisfies stringent security standards which establishes trust.

OPEN SYSTEM ARCHITECTURE

Access control, escape door control, and monitoring systems are linked centrally to the GAM door module. The open interface architecture enables the connection of many customary card readers, e.g. via RS-485 or Wiegand protocol – independently from the applied reading technique. GEMOS access can be seamlessly integrated into the GEMOS management system as they are based on the same software core.

ECONOMICAL AND FLEXIBLE

When using GEMOS access, maximum economic efficiency and flexibility are ensured, as future extensions can be integrated directly at the door. Problematic overlaps between trades and costly duplications of work are thus avoided. Whether access control, hold-up and intruder detection systems or escape route control – GEMOS access is a universal and economical solution that focuses on planning security. For this, all product components are updated continuously to remain state-of-the-art and ensure cost-efficiency thanks to their long service life.
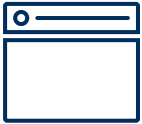
USER-FRIENDLY SOFTWARE

The user interface of GEMOS access features high user friendliness. Clear menu navigation, predefined settings and a device recognition wizard ensure convenient handling. The browser-based software operates independently of the various browser types and therefore reduces administrative overheads to a minimum.

SUPPORTING VISUALIZATION

When implemented professionally, complex situations can often be visualized more easily and are ultimately more easily understood by the customer. Our systems for visualization of the door statuses within the ground floor plan have been tried and tested over many years and the "Professional" version puts this kind of assistance and support at the disposal of our customers. In these systems, we use the expertise we have acquired over the last 25 years in the area of PSIM productively for GEMOS access, a system which has emerged from our established advanced physical security information management system GEMOS.

ENVIRONMENTALLY AWARE

Acting in an environmentally-conscious manner to reduce our ecological footprint is one of the greatest concerns of BKS in all areas of the company. We have therefore been certified to DIN EN ISO 14001:2009 (international standard for environmental requirements) and DIN EN ISO 50001:2011 (international standard for energy requirements) since 2015. We continuously reduce our CO_2 consumption by combining orders, avoiding the use of unnecessary plastic and reducing fill material. By adopting this approach, we have been able to reduce the proportion of plastic in transport packaging by 48%. Additionally, three quarters of all packages are now dispatched without fill material.

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Overview of functions

Equipped for every application: in order to satisfy all door-related security requirements, a whole host of functions is available with the GEMOS access access control system.

Whether as an entry-level system for private homes or as a complex solution for sophisticated projects – GEMOS access is available in a wide range of system sizes and with individually adaptable performance features and modules for different requirements.

PERFORMANCE FEATURES

- Scalable access control software

- Integration into existing, also heterogeneous, networks

- Hybrid system operation with various ID card and reader types in one installation

- Direct interfacing with escape door control units via BKS-NET (e.g. FTNT)

- Straightforward installation via TCP/IP network, bus system and distributed intelligence

- Flexible configuration by abstracting the access rights from the room structure

- Browser-based operation, no installation of drivers or software on the clients

- SQL-based database

- Integration into building management systems via open interfaces

- Door licenses contain licenses for the BKS ixalo RFID cylinder

SYSTEM SIZE

- Up to 1000 time zones

- Up to 1000 time zones per user

- Up to 1 000 000 ID cards

- Up to 1 000 000 users (authorised access)

- Up to 10 ID cards per user

- Up to 10 000 reader groups or room zones

- Up to 10 000 user groups

- Up to 2000 GEMOS access controllers

- Up to 20 000 readers

- Up to 4 time intervals per day

Photo: AdobeStock / BullRun

FUNCTIONS AND FUNCTION MODULES

- Elevator control
- Access sequence check/room zones
- Visitor ID card administration
- Reporting system
- Biometrics
- Bus redundancy
- Bus encoding
- Digital locking cylinders
- Double-access blocking
- Dynamic rights
- Intruder alarm functionality
- Simple gatekeeper interface for creating daily replacements and visitor passes
- ID card replacement management
- Connection of ixalo RFID reader
- Reader level
- Client capability
- Multiple person presence check
- OSS SO offline reader (including validation)
- OSDP bus reader

- People counting
- Random ID
- Rights search
- IDS activation
- Key ring administration
- Interface management system
- Software-based sluice control
- Control via danger alarm systems
- Bag check
- Re-register
- Management of user groups with authorisation and time profiles
- Management of offline readers (offline cylinders)
- Four-eyes principle (multiple person presence check)
- Visualization
- Visitor pre-registration by an employee
- Path guidance/path tracking
- Assignment of several ID cards to one user
- Repeat access block (anti-passback)
- Two person access check
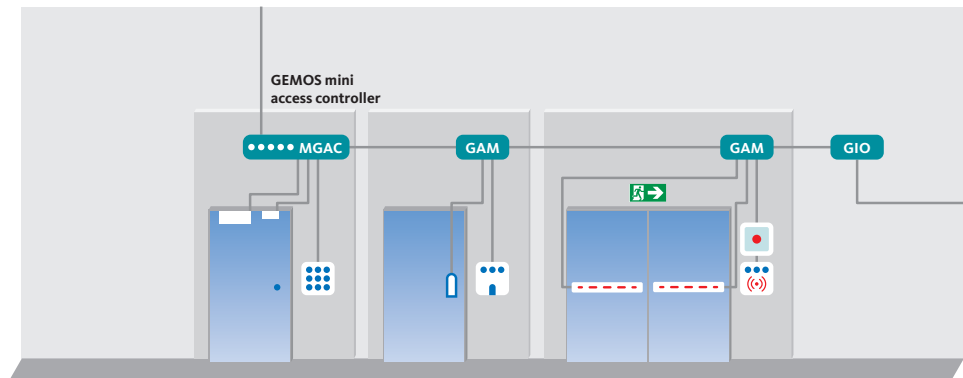
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System design

SYSTEM DESIGN – CENTRALLY–LOCALLY

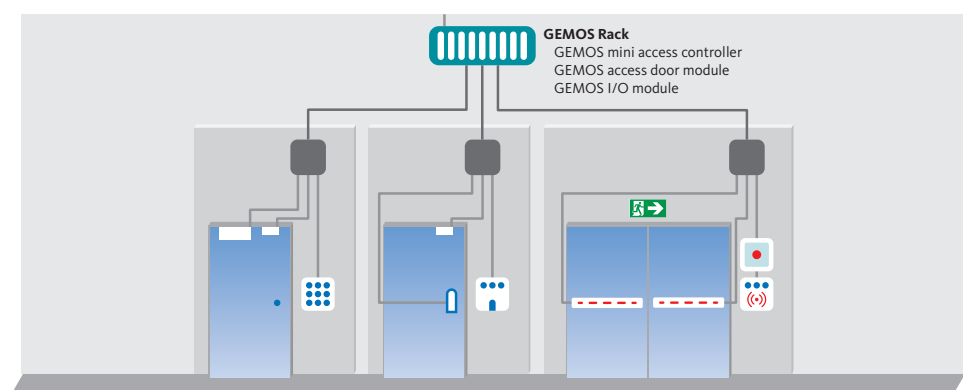- Central controller
- Modules on the doors
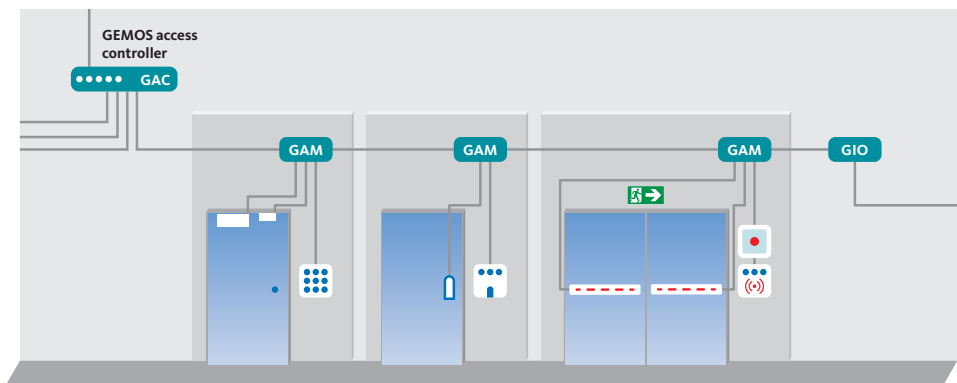
SYSTEM DESIGN – LOCALLY

- Everything local
- Controller/modules on the doors

SYSTEM DESIGN – CENTRALLY

- Everything central
- Controller/modules in a GEMOS rack
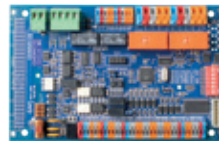
System components and installation variants

All GEMOS access product components are developed by BKS itself. Our customers can therefore benefit from the many years of know-how and experience of our product developers in the area of access control.

HARDWARE

We develop the core products that form the basis for GEMOS access. A range of other products is of course also available, please refer to our catalogue. To be able to offer our customers an all-round service, we also offer bought-in products, such as wall readers or code keypads.

Control centre (ZKZ)
GAC 8x RS-485
128 participants

Door module
GAM 3x RS-485 FTNT
GAM rack

Control centre (ZKZ)
MGAC 1x RS-485
16 participants
MGAC rack

I/O module
GIO 1x RS-485 16xI/8xO
GIO rack

INSTALLATION VARIANTS

A range of variants, from wall-mounted, 19"-rack to top-hat rail-mounted components, are available to increase installation flexibility, and also to more easily accommodate local situations and special characteristics.

19" rack
up to 10 boards and 2 PSUs

Top-hat rail housing
1 board

Box wall housing
up to 2 boards and 1 PSU

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Escape door system solutions

Escape and rescue route systems do not permit stand-alone solutions. Maximum security of these systems can only be ensured if all components have been harmonised individually with the building situations and work perfectly together.

Ensuring the functional interplay of various components on a door in escape and rescue routes and places high demands on products and planners. Especially escape doors with additional locking elements require considerable effort during planning and commissioning. Complex functions are easy to implement with the GEMOS access module (GAM), the FTNT escape door control unit and the BKS-NET bus. A technical highlight is the combination of an escape door terminal and card reader in one device. An identity medium is used for on-site unlocking and acknowledgement, which means that all control operations (unlocking, locking and acknowledgement) can be logged. Furthermore, alarms can be forwarded directly via GEMOS access so that intervention measures can be taken immediately. The door statuses (open, closed or locked), and also inappropriate use of the escape route, are monitored.

Performance features:

- Logged control operations (unlocking, locking and acknowledgement)
- Door status monitoring (open, closed or locked)
- Simple wiring with 4-wire bus
- Acknowledgement via identity medium
- Compliance with EltVTR

ixalo – the electronic locking system

Perfectly combined: ixalo – the electronic locking system by BKS. Integrating ixalo into GEMOS access provides organisational and economic advantages, which gives the customer real benefits.
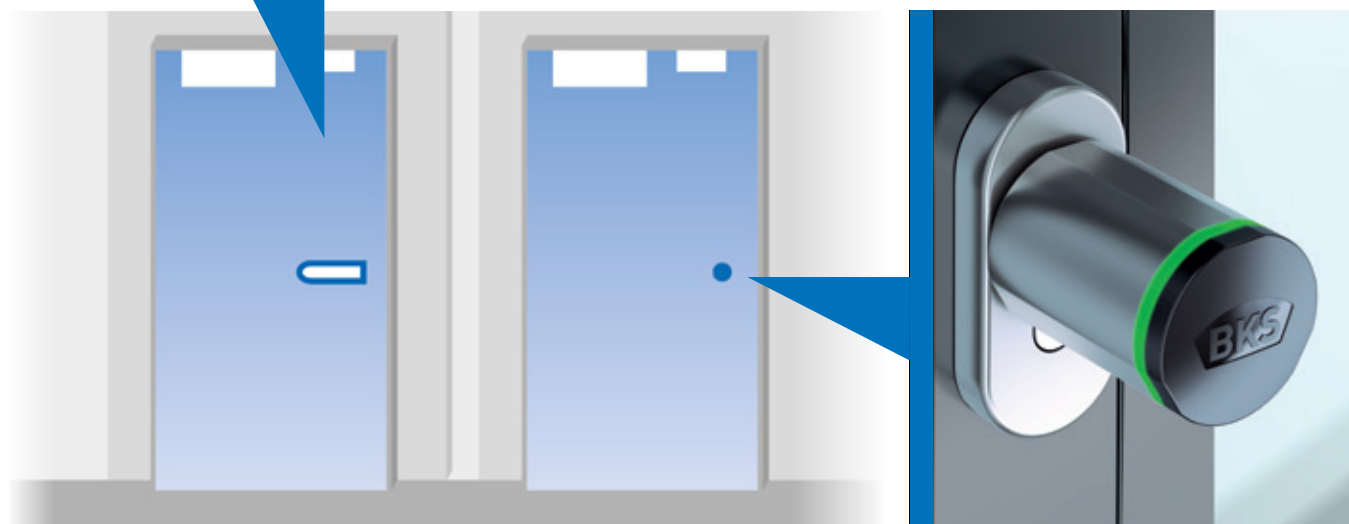
You want to integrate unwired doors retrospectively into your access control system? Thanks to the combination of GEMOS access and ixalo, doors can also be integrated offline. The versatile product range by ixalo offers a uniform system solution and allows you to find the best possible solution for every door requirement.
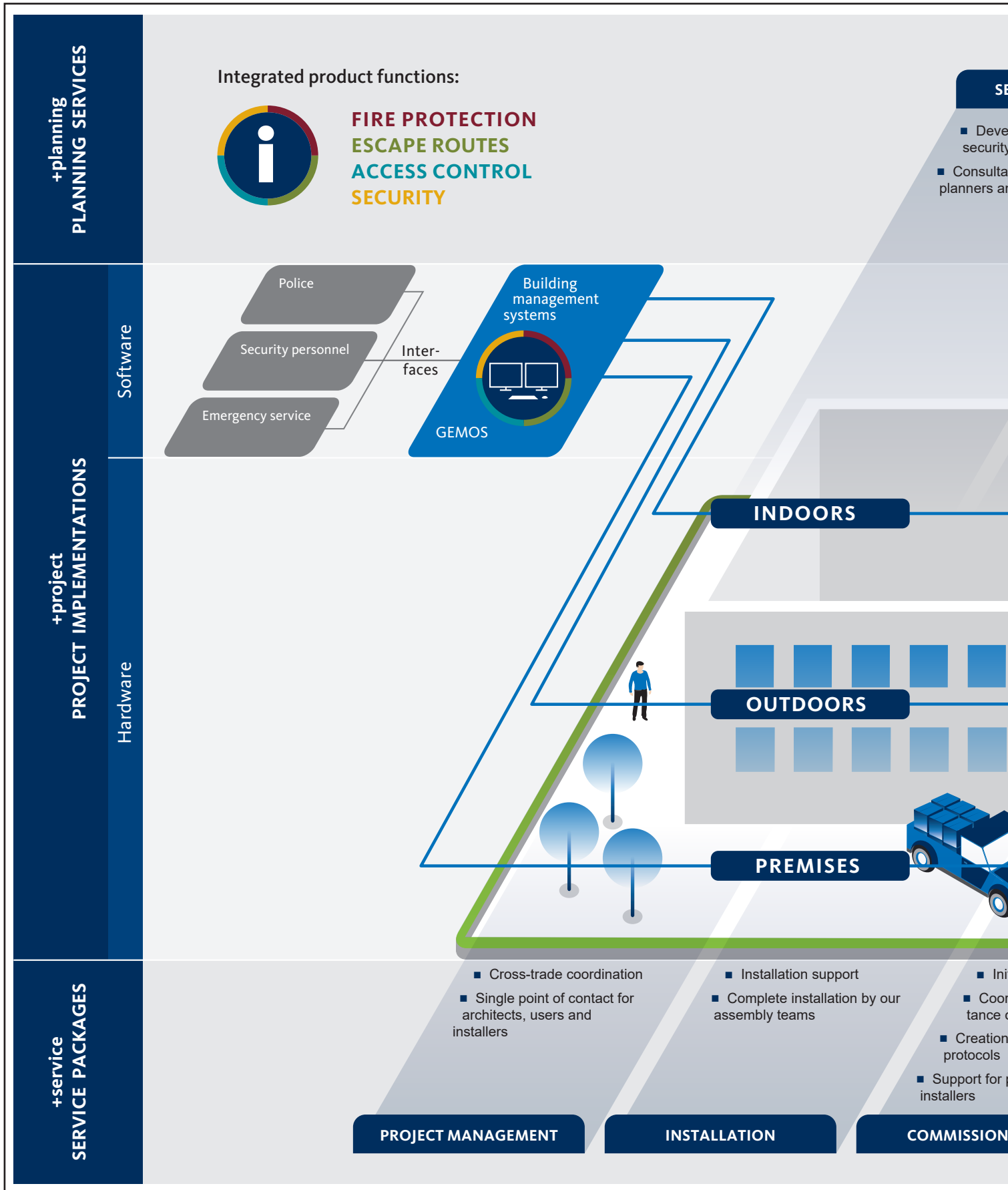
The access rights can be easily assigned via GEMOS access. Furthermore, all online and offline components can be administered simultaneously in GEMOS access.

Benefits:

- No wiring on the door
- No changes to the existing door are necessary
- Common administration of online and offline access points
- Special performance feature: use of random IDs

BKS Connect at a glance

+planning PLANNING SERVICES

Integrated product functions:

FIRE PROTECTION
ESCAPE ROUTES
ACCESS CONTROL
SECURITY

SE

- Deve
  security
- Consulta
  planners a

+project PROJECT IMPLEMENTATIONS

Software

Police

Security personnel

Inter-
faces

Building
management
systems

GEMOS

Emergency service

Hardware

INDOORS

OUTDOORS

PREMISES

+service SERVICE PACKAGES

- Cross-trade coordination
- Single point of contact for architects, users and installers

- Installation support
- Complete installation by our assembly teams

- Ini
- Coor
  tance
- Creation
  protocols
- Support for
  installers

PROJECT MANAGEMENT

INSTALLATION

COMMISSION

...ECURITY CONCEPTS

- ...lopment of cross-trade ...y concepts
- ...tion service for ...d architects

TENDERING SERVICE

- Provision of meaningful tender specifications
- Consultation service

PLANNING AID

- Planning aid and provision of CAD drawings
- BIM models
- Door engineering

PREPARATION OF QUOTATION

- Preparation of cross-trade quotations

Access control systems

System solutions for escape and rescue routes

Fire alarm systems

Hold-open systems

Swing-door drives

Smoke and heat exhaust ventilation systems

Mechanical and electronic master key systems

Danger alarm systems and intruder detection systems

Automatic doors

Hardware for burglar protection

Gates

Loading docks

Video systems

Intercoms

Turnstiles

Barriers

Fence monitoring

Parking lots

- ...tial start-up
- ...rdination and accep-...of all components
- ...of acceptance
- ...planners and

- All components serviced at regular intervals
- Service contracts
- Implementation of maintenance software
- Updates
- Seminars

...ING

SERVICE AND MAINTENANCE

> *With BKS Connect, we ensure optimal security by providing customised solutions in different sectors. A comprehensive one-stop solution. GEMOS access also belongs to the BKS Connect portfolio.*

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