



WINDOW TECHNOLOGY
DOOR TECHNOLOGY
AUTOMATIC ENTRANCE SYSTEMS
BUILDING MANAGEMENT SYSTEMS



INNOVATIONS | SYSTEM SOLUTIONS | SERVICES



GEMOS and GEMOS access: advanced Physical Security Information Management



software, hardware, access control and
extended redundancy system

Securing technology for you

About us

Introducing our company



ela-soft GmbH has been on-the-go for more than 25 years...

Security is our concern

Since 1990, ela-soft has been developing manufacturer-neutral management systems for security, building and communication technology. With the successful GEMOS system, which integrates all the technical subsystems into a central, simple-to-operate interface, ela-soft counts amongst the market and technology leaders in this sector. At the Head Office in Berlin, and at the branches in Offenbach and Velbert, highly-qualified employees are involved in the development of specialised software and hardware solutions, and offer service and project control close to the customer during the system start-up phase.

Over 700 implemented interfaces and more than 1000 installed systems prove the 25 years of experience and the success of the products from ela-soft.

Business segments

- Physical security information management systems
- Building and communication management systems
- Integration and interface management
- Access control systems
- Monitoring systems

Integrated systems

- Fire, intrusion detection and danger alarm systems
- Access control and emergency exit control systems
- Audio, media and video systems
- Radio, personal emergency and communication systems
- Building, electric and messaging management systems

Interface management

- Security systems
- Building management systems
- Communication systems
- Database connection

Development milestones

Since 1990, ela-soft has been developing highly integrated danger management systems with manufacturer-neutral interfaces for emergency call centres and control centres.

- 1990 ELOS Operation management organisation system
- 1992 GEMOS 1 Building management system and organisation system
- 1996 GEMOS 2 under MS Windows 95
- 1997 Main fire alarm control system with individual VdS approval
- 1998 GEMOS interface manager for government buildings in Berlin
- 1999 Highly available integrated operations control system (BAYER AG)
Development of an OEM escape door control system
- 2000 Integration of ela-soft into the Gretsch-Unitas group
GEMOS Pro02 server as interface manager
- 2001 GEMOS Web server under LINUX
Development of an OEM access control system based on GEMOS
- 2002 Integration GEMOS – PRISMA
- 2003 GEMOS 3 browser-based integrated security management
- 2004 Deep integration of video technology control
- 2005 ArenaControl
- 2006 LogisticControl
- 2007 DatacenterControl, hardware and software upgrades
- 2008 Direct import of AutoCAD® drawings
- 2010 GEMOS 4, GEMOS access
- 2012 New GEMOS and GEMOS access hardware
- 2013 GEMOS access redundancy expansion
- 2014 Inauguration of Offenbach training centre
- 2015 Implementation of the newest GEMOS video client and various new modules

Reference projects

Many satisfied customers from the areas of the chemicals industry, law enforcement, transport, utilities, banks, office buildings, hospitals, multifunction arenas and logistics place their trust in GEMOS as their security information management systems. Our list of reference projects (website) presents a brief selection of projects carried out with GEMOS.



Integral management and access control system

Building, security, risk or facility management – these are only a few of the terms to describe the functions and services of GEMOS.

GEMOS is a range of products comprising software, hardware, accessories and services. As a software-based graphical management platform, GEMOS supports the technical and organisational implementation of all methods for safeguarding against danger. Individual analysis of the dangers that threaten companies and institutions represents the starting point for the adaptation of GEMOS to customer's needs. Security is a management issue, but in daily operation, the instruments must be made available for the consequent implementation by responsible employees and must therefore be simple, logical and intuitive to operate. This is reliably achieved by GEMOS through a trade-spanning interaction, logical links and an intuitive user interface – even for the control of such complex security installations as, e. g., fire alarm, intrusion detection alarm, escape door control, access control, video, and intercommunication systems.

GEMOS access represents another of ela-soft GmbH's own product line in addition to GEMOS. The application options extend from offline access control systems for small applications to modular and fully integrated parts of building, security or

danger management systems. Free scalability is the basis for the economic application of GEMOS access, regardless of whether it is for small projects with only one access point and a small circle of people or complex large-scale facilities.

GEMOS access unites different technical trades involved in the security on and around the door: access control, escape door control, and monitoring systems are linked centrally to the GAM door module. The systems are connected via a GEMOS universal bus, either with stub lines or in a redundant loop circuit. In addition, a 128 bit AES encryption of the serial bus is possible as an option. The open interface architecture enables the connection of many customary card readers – independently from the applied reading technique. Program core and database are based on years of consistently further developed and innovative GEMOS software philosophy.

Clear menu structures, predefined settings for typical applications as well as hardware recognition assistants allow for fast and therefore economic handling both during installation and operation.



GEMOS – advanced Physical Security Information Management

Flexible, efficient, vendor-neutral



GEMOS – advanced PSIM

The GEMOS - advanced PSIM adapts to the customer user profile. Thanks to the integration of network interfaces and cable connections provided, the entire control, operation and monitoring of security and media technology facilities as well as of buildings can be managed in a modular and flexible manner.

Performance features:

- GEMOS is the leading security information management system in the German market with over 750 different proprietary interfaces and over 1000 installations.
- GEMOS is manufacturer-neutral, i.e. integration of systems from different manufacturers is possible.
- The design of custom user interfaces according to customer needs is possible through the web-based interface.

- Highest availability thanks to various redundancy concepts (network, server, database etc.)
- Special solutions for different sectors such as, e. g. multifunctional sports arenas, penal facilities or data centres
- The direct import of Auto CAD drawings allows the immediate use of existing architectural floor plans
- High scalability using flexible license models, divided into three levels, *light, standard and professional*
- Software, hardware and licenses with modular system design

Management/Visualization

GEMOS-HTML-Clients

TCP/IP Interface

Subsystem Visualization

GEMOS User Interface

Pro 02-API

CAFM-System

Core processes

Pro 02-Server



Communications Engine

GEMOS Kernel

SecurityChecker

Serial links or gateways

GEMOS Bus Gateway

Pro 02-API

GEMOS Security Bus

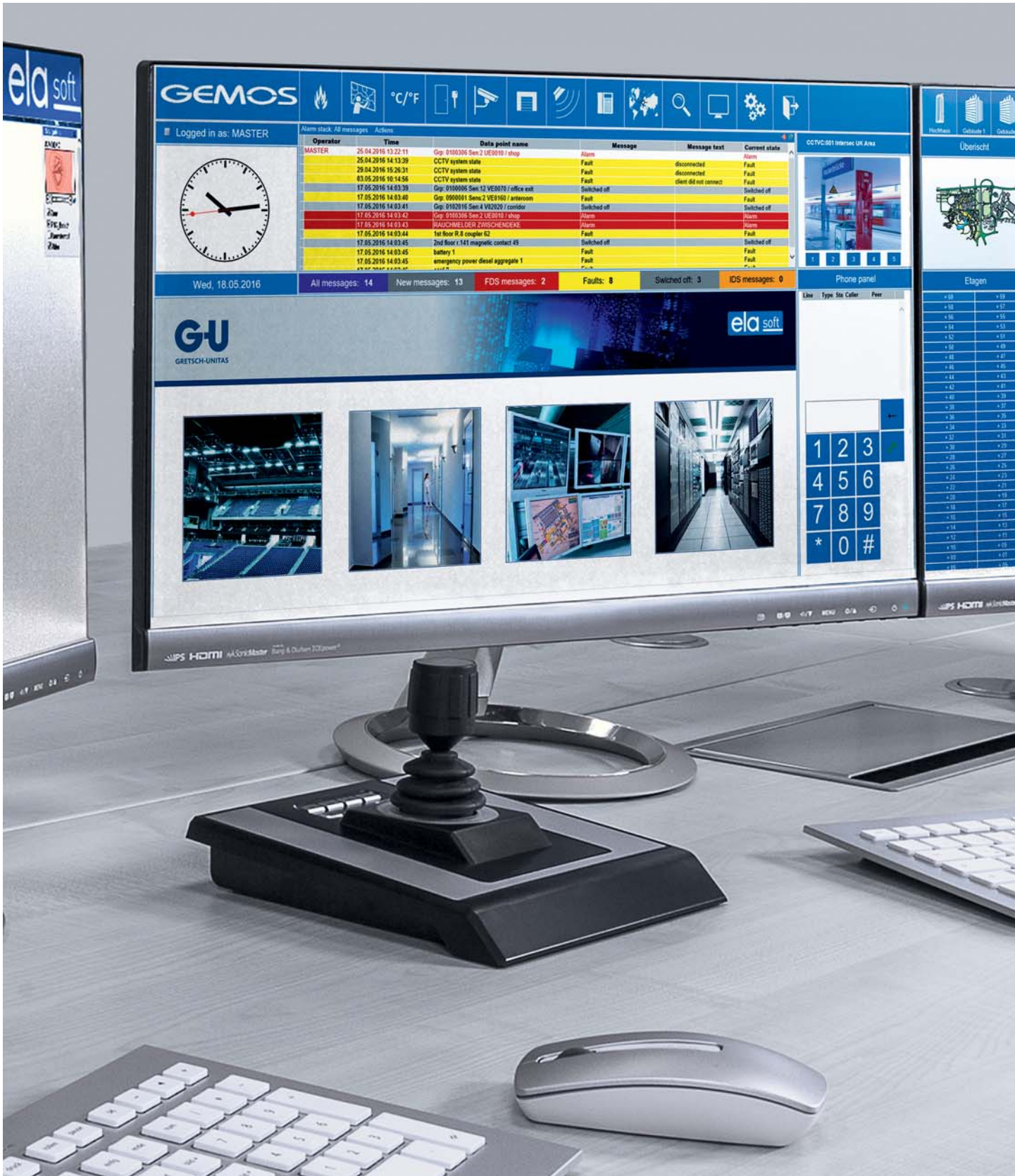
Ethernet/LAN

Network/WAN

Serial Interface

TCP/IP Interface

Subsystem/Field Buses



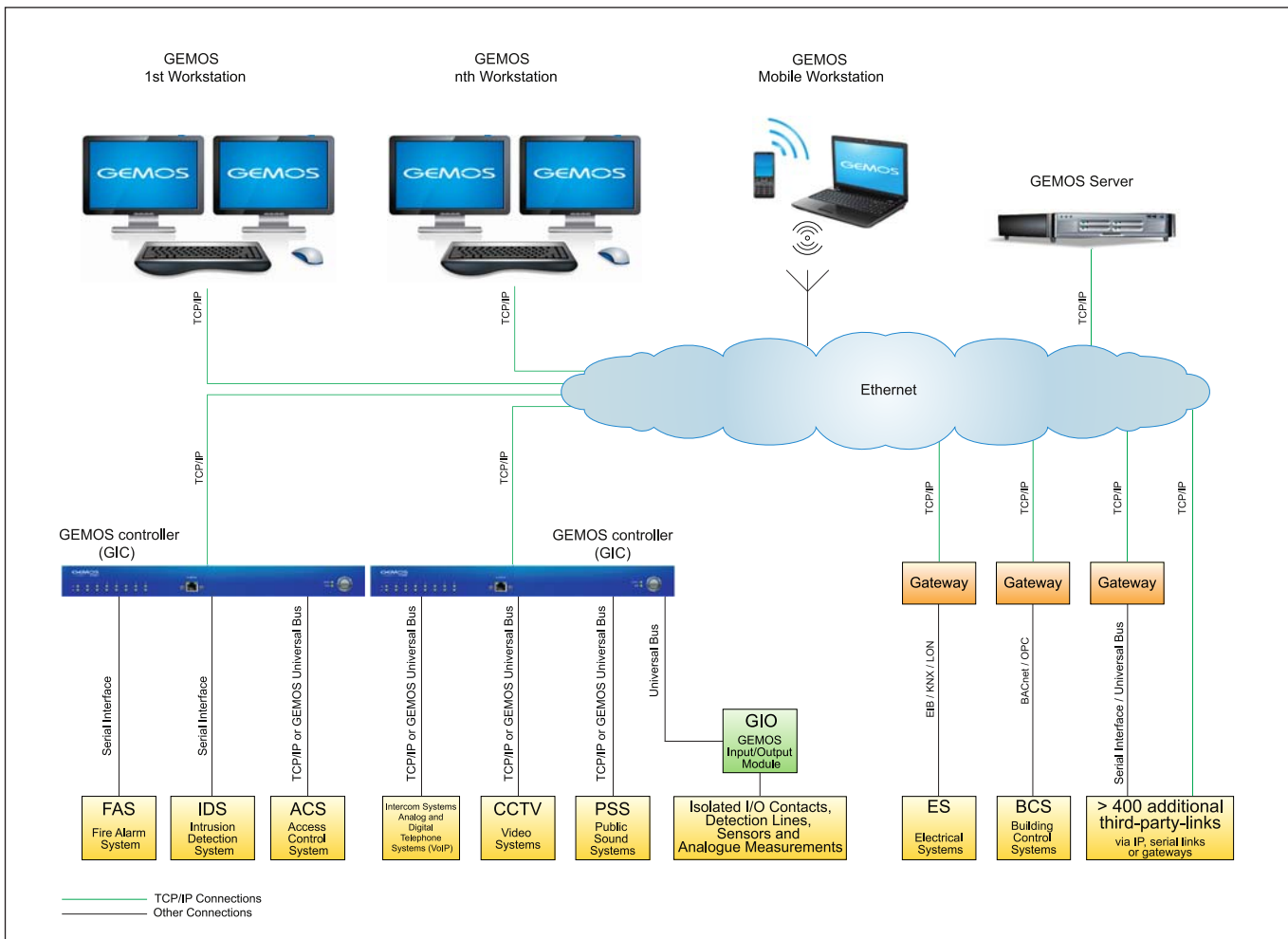
Web-based client/server structure

Secure beyond IT standards



GEMOS – System overview

- The modular design of GEMOS allows for versatile solutions: from individual workstation systems to cross-company multiple workstation systems.
- Every trade has its own language, has its own requirements and requires that users have specific knowledge. GEMOS understands and translates information from any trade. It combines all information under a clearly laid out user interface and consolidates trade alarms and other alarms into one point.
- Redundancy concepts can be implemented according to workstation, network, server and interface requirements.



GEMOS System overview

The highest availability at all levels

The HA agent monitors all hardware and software components



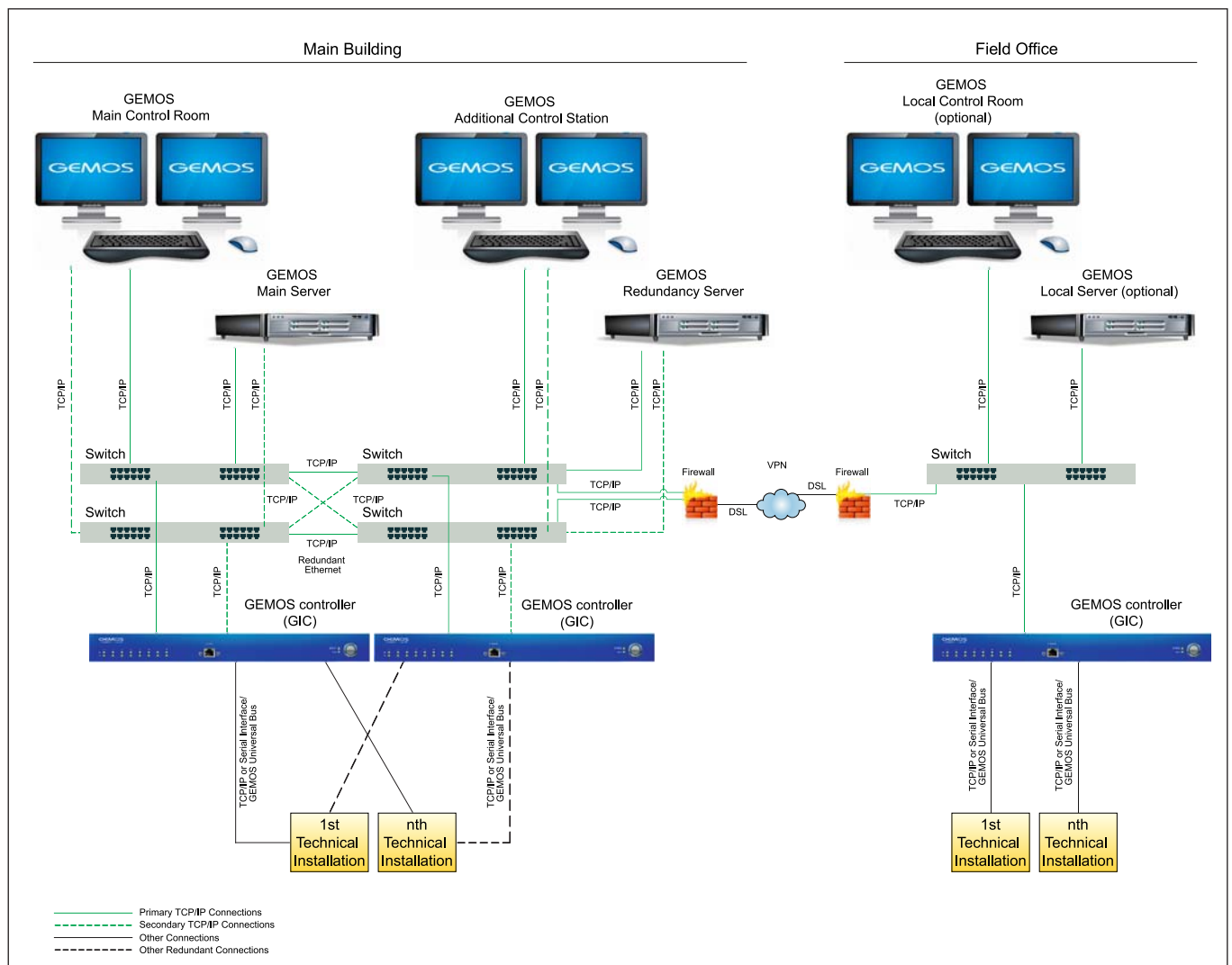
GEMOS – Redundancy

GEMOS can be designed continuously redundant on all levels.

Redundant designs of operating consoles, networks, servers, databases and interfaces absolutely guarantees high availability.

The GEMOS HA agent monitors all GEMOS components in that it queries the status via Life Beat.

In the case of a malfunction, it informs the hot standby component, which now activates itself as the master and continues its operation.



GEMOS Redundancy

What can be integrated into GEMOS?

Anything that has an interface



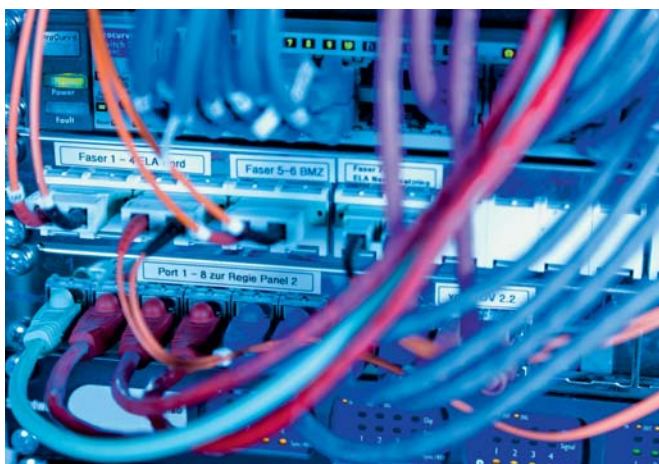
GEMOS Interface management

It is possible to manage numerous media, communication and security systems in a manufacturer-neutral manner with GEMOS.

The physical link can be made via simple contacts, serial interfaces or TCP/IP. Data connection is effected with native proprietary interfaces or via standard bus systems such as OPC, BACnet, LON or KNX.

Adaptations implemented so far:

- Fire alarm systems
- Assault and intrusion detection systems
- Video monitoring systems
- Access control systems
- Fire extinguishing and smoke and heat exhaust ventilation systems
- Escape door and sluice door controllers
- Intercommunication systems
- Public sound systems
- Analog and digital telephone systems (Voice over IP)
- Building management systems
- Personal emergency response systems
- Radio installations
- Media technology (audio, video, control)
- Hazard alert systems, failure report systems, alarm systems
- IT hardware via SNMP
- Elevator control



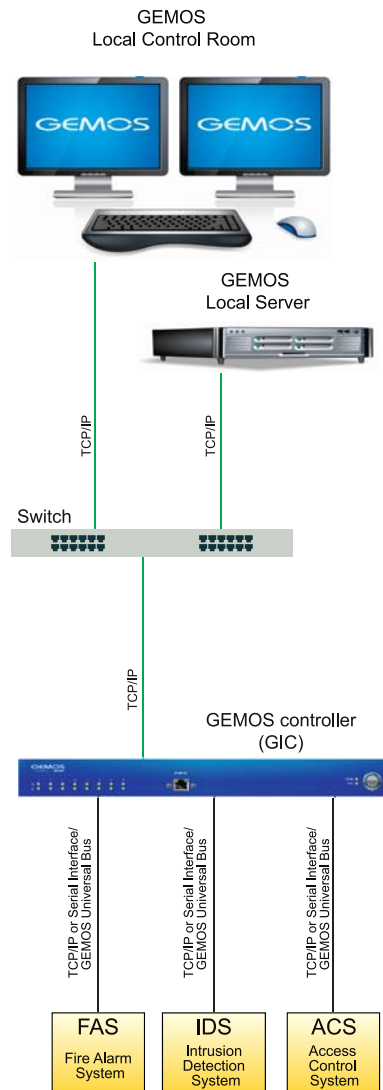


GEMOS Interface driver

High availability and secure interfaces are the basis for the smooth-functioning linking of third-party systems to management systems. Intelligent interfaces provide a separate driver for coupling with every third-party system. The GEMOS driver is independently run-capable and a self-contained software component that, on the one hand, speaks the language of the third-party trade and, on the other hand, speaks "GEMOS". Thanks to its autonomy, the GEMOS driver can work on separate hardware like on the GEMOS controller under Windows or Linux. The benefit of using separate hardware is that the system load of the main server can be considerably reduced. If several interfaces are used, these can be separated from each other logically and also spatially.

Individual interface drivers can also be 100% redundantly linked to GEMOS in conjunction with the HA agent GEMOS redundant module. Both drivers run simultaneously (if desired also on separate hardware) and are permanently monitored for function via the GEMOS HA agent. If the driver or a third-party trade interface malfunctions, the HA agent switches to the second one, and the GEMOS operator is notified of the malfunction via an error report. The communication between GEMOS and the third-party trade, however, remains unrestricted.

All important hardware parameters are read out and, if necessary, presented as an event in the GEMOS user interface with the GEMOS SNMP status monitor. If, for example, the temperature of a hardware component is too high, for example, a defined threshold alarm can be generated so that appropriate measures can be implemented before the affected component fails.



Interface connection

The most varied events in a building

Multi-functional solution for multi-functional tasks



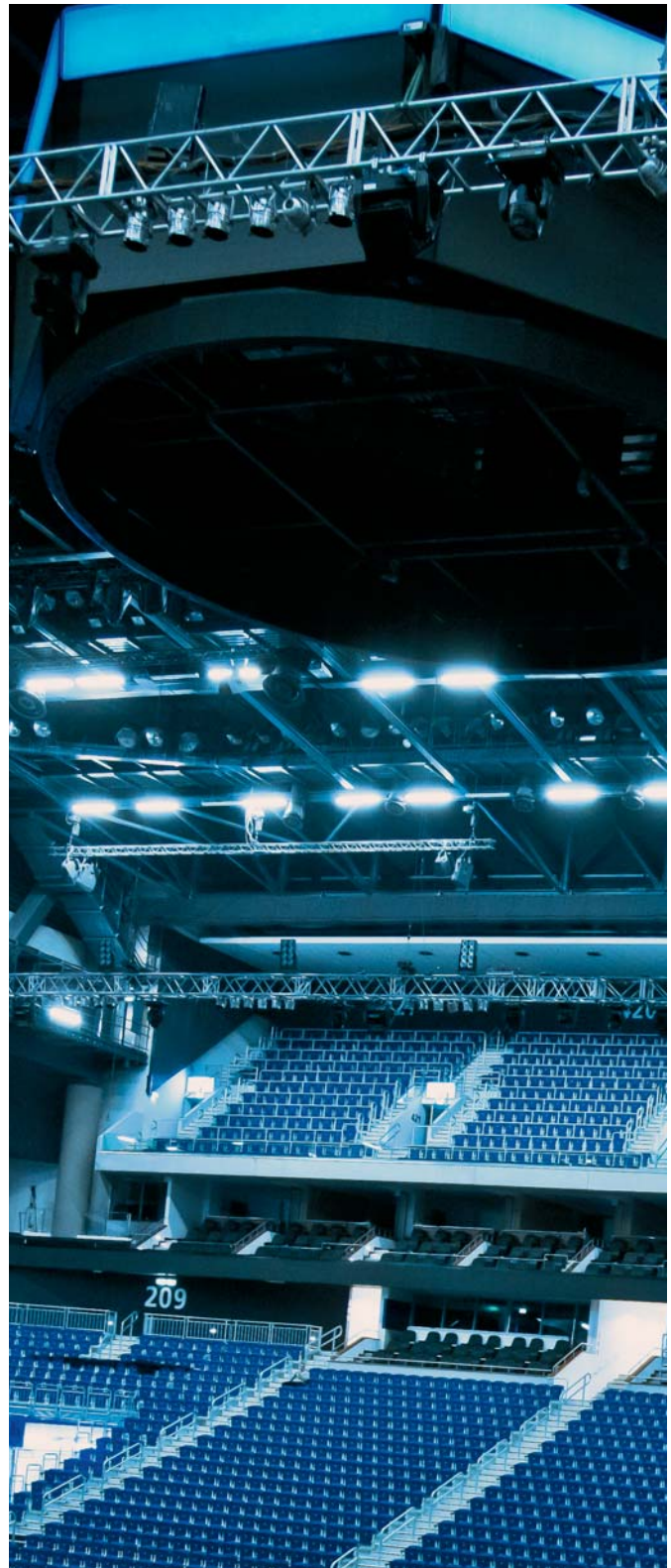
GEMOS sector-specific solution: ArenaControl

Today, the technical equipment in modern sports and multi-purpose arenas must meet the highest demands. In addition to highly available IT and telecommunications structures and high security demands, media equipment like speakers and acoustic irradiation systems, display panels and TV devices are crucial for acceptance with visitors.

High flexibility in view of varying, event-related requirements and changing users requires a lot of planning and installation effort.

GEMOS ArenaControl provides the ideal platform for all typical requirements thanks to its flexible, software-based system-networking capabilities, pre-defined scenarios for events and custom workstation interfaces.

The most important for us is that visitors can cheer for their team or favourite artist and go home happy without having noticed any of the technology involved. We are proud of the fact that, with our consultation, technology and our services, we contribute significantly to this success.



Predefined scenarios for events



GEMOS sector-specific solution: penal facilities and forensics

The GEMOS solution for penal facilities and forensics is specially tailored to the needs and requirements of prisons.

Performance features:

- Implementation and connection of inmate databases to GEMOS
- Display of inmate information
- Integration of access control with intelligent door control for conducted paths
- Sluice function, individually adaptable
- Integration of electronic locking systems
- Integration of personal emergency call systems with location function and localisation in the floor plan
- Control of telephone options for inmates
- Security systems for copings and fences combined with video systems
- Alarm transmission to work stations, staff members or assigned tasks depending on time, duty rosters and situations
- Guard control



Intelligent door control for penal facilities and forensics

Logistic processes under control

Holistic security from registration to execution



GEMOS sector-specific solution: LogisticControl

The GEMOS LogisticControl solution is specially tailored to the needs of logistics companies.

The module manages all processes, from reception to entry, loading procedures, travel routes, exiting and checkout.

By linking the entry control system, the communication system, inventory control and video and alarm systems, a network of clearly defined stations is created, the correct flow of which can be comprehensively controlled, documented and evaluated with minimum manpower requirements.

Loading process optimisation via the visualisation of the payload bays and truck driver assignment e.g via large LED displays.



Management of all steps of logistic processes



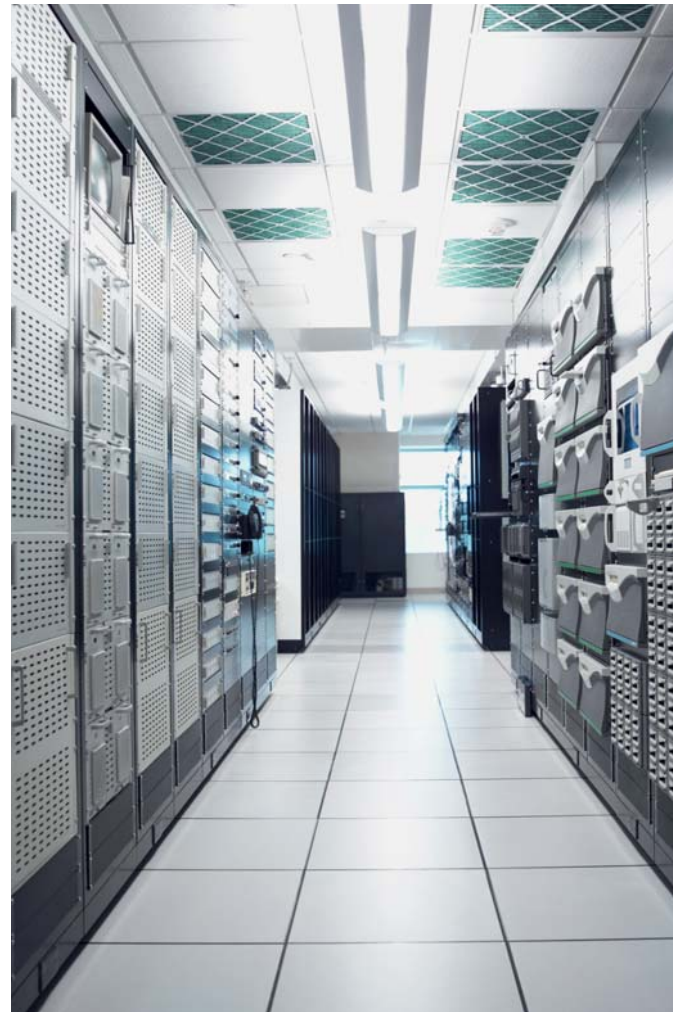
GEMOS sector-specific solution: DatacenterControl

GEMOS DatacenterControl was specially developed for the requirements of modern and secure data centres.

Performance features:

- Control of physical presence of hardware
- Control of the individual 19 inch racks with 3D status overview indicating whether doors are open, closed, or locked
- Rack-wise system temperature indication
- Room-wise control and indication of ambient temperature
- Control and visualisation of cabinet locking systems, smoke exhaust systems, access control and video systems

Various individual subsystems are integrated into a complete system with consistent operation, visualisation and alarm functions that can be comfortably controlled via the web browser.



Data processing centre

Software module

Functionality without limitations



GEMOS Software module

GEMOS Software module fit perfectly into the overall system and offer solutions for nearly any task. Their development is based on current trends in the IT and security, but also leaves enough room for customer-related requirements.

Example: Task Manager

The innovative Task Manager uses the widespread use of mobile devices in the field of security and building management. It enables the transmission of text and picture messages between a GEMOS workplace and any device via WLAN or GSM. For Android and Apple devices an app is provided.

With the central GEMOS Task Manager work orders can be created, managed and transferred to different employees with mobile devices. The status of each work order can be tracked and processed in a clear display. At the same time the employees can accept and complete their work orders, send image and text information to existing or newly created work orders and adjust their status via the app.

Available are:

- Switch-off manager
- Address management
- Backup (online)
- Dead man's switch
- Visitor information
- Image comparison
- Dynamic rights control
- Fire detector positioning plans
- FM Analyzer
- GIS
- GSM-SMS
- Import client
- Log book
- LDAP phone book
- Email
- Sensor import
- Resource translator
- Single sign-on
- Task manager
- Text to speech
- Incident management
- Video management
- Video client and video wall
- Guard control
- Calendar



GEMOS advanced PSIM video client

Personenbild: Getty Images

Operating panel for control stations

All functions clearly laid out in one device



GEMOS modular control console

Modular operating consoles have been developed specifically for the requirements of modern control stations. All of the typical functions for operating GEMOS, the video system and the communication system have been integrated into one device. The basis is a compact industrial PC and a high-quality touch panel. Special additional keyboards, analogue and digital audio modules as well as RFID or fingerprint modules round off the palette. This is the first time a standard console is available that is completely integrated into GEMOS. For minor applications, e. g. a PC call station, less complex variants are available.

Performance features:

- Modular design
- Different computers and CPUs available
- High-quality industrial touch screen
- Twin network card for redundant connection
- Full integration into GEMOS
- Operating system Windows

Modules:

- Additional keyboard with dynamically illuminated and imprinted keys
- Additional dial pad with 32 keys, 20 keys of which are can be custom labelled
- Analogue or digital hand set
- Analogue microphone
- Analogue or digital microphone with loudspeaker
- Mechanical accessories



GEMOS modular control console

Interfaces and data traffic under control!

Technology in a 19-inch housing



GEMOS interface controller (GIC)

The GEMOS interface controller (GIC) is used as an interface server for the GEMOS security information management system. Different application-specific drivers permit communication between external systems and GEMOS. Communication with the GEMOS server takes place via TCP/IP. The two teaming-capable Ethernet connections on the back mean that a redundant system structure is possible.

The GIC is available in two different versions. The device with built-in power supply unit has a 230 V AC IEC plug connector. The version without integrated power supply unit has 2 separate 24 V DC connectors, which can be used in combination with either single or redundant external power supplies.

Performance features:

- LED display of the statuses of the receive and transmit lines of the serial interfaces
- Simple configuration of the interfaces by pluggable modules (RS-232 or RS-485/422)
- Up to 8 electrically isolated interface connections
- 19-inch rack with 1 rack unit (438 × 44 × 320 mm) or can be used as tabletop unit (removable fixing bracket)
- Incl. operating system, firmware on included SSD
- 2x Ethernet 10/100Base-T with RJ45 teaming-capable or individually configurable, as well as 1x Ethernet 10/100Base-T as service port or as connection for IP-based subsystems

Accessories:

- Installed power supply
- Redundant power supply
- Micro module for GEMOS universal bus



GEMOS interface controller (GIC) front view



GEMOS input/output module (GIO)

The GEMOS input/output module (GIO) provides a simple and convenient solution to connect any periphery devices to GEMOS. It is possible, e. g. to connect sensors and magnetic or deadbolt switch contacts and to switch digital outputs.

The large number of input and output options offer maximum flexibility.

Performance features:

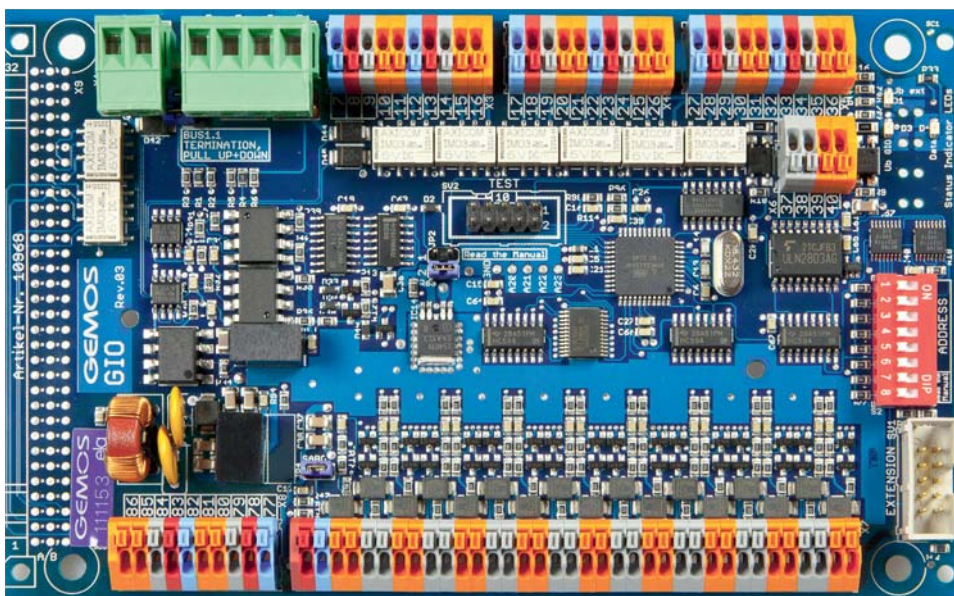
- Modern microcontroller technology
- Capture of binary inputs, analogue detection lines and analogue measurements (e. g. fire and intrusion detection alarms, temperature measurement, etc.)
- Connection to the GEMOS universal bus
- Cable lengths of up to 1,000 m between modules are possible thanks to the amplification and potential separation of busses.
- 128-bit AES encrypted transmission (optional)
- Redundant bus connection and ring bus system possible
- Designed as rack for 19-inch installation or as housing variant (e. g. IP65 or DIN rail housing)
- Colour-coded terminal clamps for simple, tool-less installation

Inputs:

- 16 universal inputs that can be programmed as digital, differential or multi-state detection line. The detection line can be selected as voltage or resistance measurements per configuration.
- up to 2 bipolar optocoupler inputs (e. g. for monitoring voltage)
- 1 sabotage line with resistance monitoring (differential line), connection for cap contact

Outputs:

- 8 relays with a nominal current of 0.5 A
- All relay outputs are designed as normally open (NO) and normally closed (NC) contacts (two-way contacts)



GEMOS input output module

Intelligent ethernet connectivity

The mini GAC controller serves for connecting periphery devices (GIO module) and doors (GAM module) directly via TCP/IP with GEMOS server.



GEMOS access – Access control systems

Integral high-end solution for large and small facilities



GEMOS access – intelligent door and emergency exit control, intrusion detection and locking technology

GEMOS access represents another of ela-soft GmbH's own product line in addition to GEMOS. 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 danger management systems.

GEMOS access unites different technical trades involved in the security on and around the door: 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. Program core and database are based on years of consistently further developed and innovative GEMOS software philosophy.

Clear menu structures, predefined settings for typical applications as well as hardware recognition assistants allow for fast and therefore economic handling both during installation and operation.

The integration of GEMOS access into the GEMOS management system smoothly takes place based on the same software core and makes the following and other functions possible:

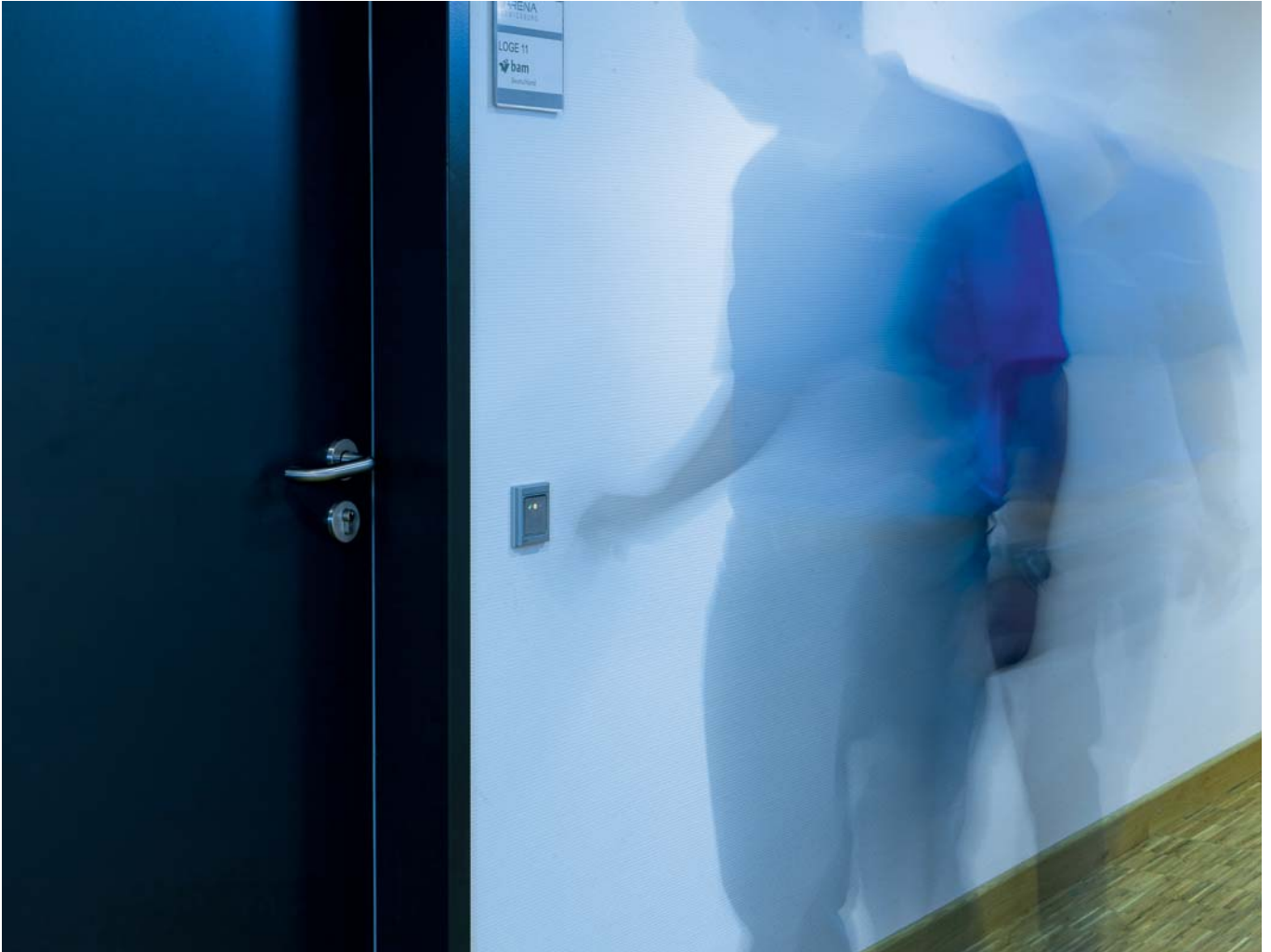
- Integration of alarms, events and reports in GEMOS
- Complete system monitoring of all hardware and software components
- Visualisation of reports, events and door statuses
- Controlling from visualised CAD based layout drawings
- Linking with third-party systems via open interfaces
- Representations of complex work flows and processes
- Joint logging of all events
- Interaction with video, intrusion detection alarm and fire alarm components
- Deep integration of

Performance features:

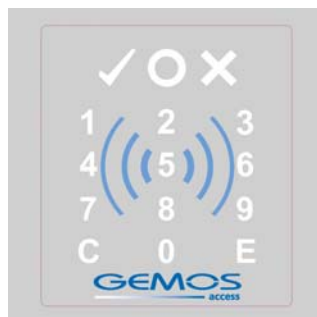
- Path guidance / path tracking
- Assignment of several identifications to one user
- Management of user groups with authorisation and time profiles
- Timed Anti Passback
- Re-register
- Validation
- Intrusion detection functionality
- Four-eyes principle (multiple person presence check)
- Two person access check
- Visitor / employee access control
- Car park (or other balancing)
- Linking with third-party systems for extended rights check (e. g. connection to biometric systems, image comparison)
- Control via danger alarm systems (e. g. with triggered fire-extinguishing system)
- Bag check
- Multi-door sluice system
- Elevator control
- Integration with key management systems/lock box systems (authorisation control and protocol of access management)
- Management of offline readers (offline cylinders)
- Simple gatekeeper interface for creating daily replacements and visitor passes
- Up to 1,000,000 users (authorised access)
- Up to 1,000,000 identification cards
- Up to 10 identification cards per user
- Up to 10,000 user groups
- Up to 10,000 reader groups or room zones
- Up to 20,000 readers
- Up to 2,000 GEMOS access controllers
- Up to 1,000 time zones
- Up to 1,000 time zones per user
- Up to 4 time intervals per day



GEMOS access – security with access control



GEMOS access
Fingerprint combination reader



GEMOS access RFID card readers with and without PIN keyboard support all current read processes such as LEGIC, MIFARE, HITAG etc.



GEMOS access vein scanner also in Siedle design

Access control for every situation

Flexible, scalable, efficient



GEMOS access – Performance features

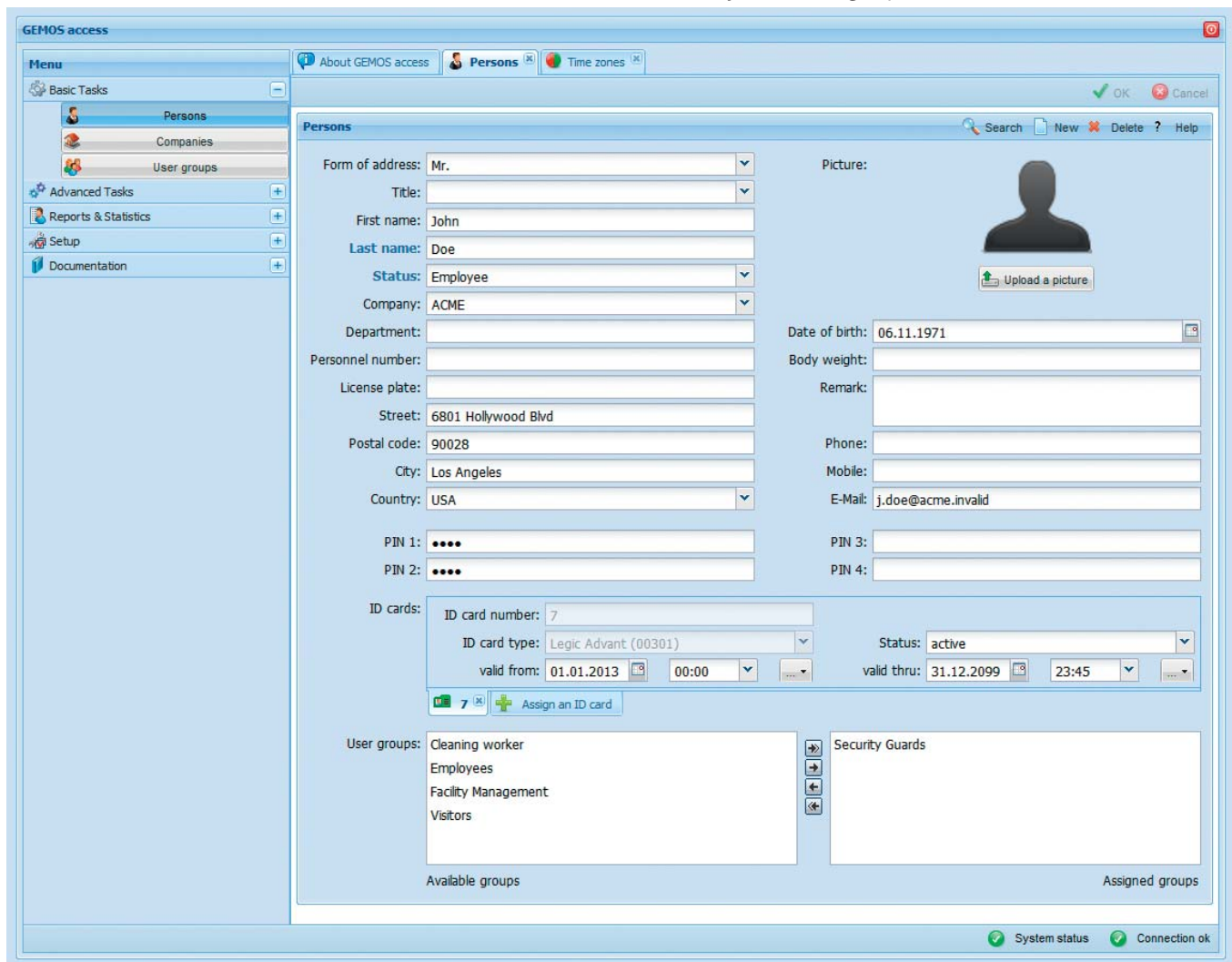
GEMOS access is the access control system from ela-soft GmbH.

The open scaling starts with small projects with e. g. one or two access points and an authorised circle of people of up to 100 and reaches up to a maximum of 10,000 access points on large projects and an authorised circle of people of a maximum of 1,000,000.

With its superior availability and integral performance, GEMOS access makes itself a high-end access control system.

Highlights:

- Mixed operation with various types of identification cards and types of readers in one installation
- Web-based user interface
- Superior availability due to redundant bus structure
- Cryptographically encoded security bus
- Connection of intelligent escape route terminals
- Integration into existing networks, also heterogeneous ones
- Integration into the building security information management systems through open interfaces





GEMOS access – All around the door

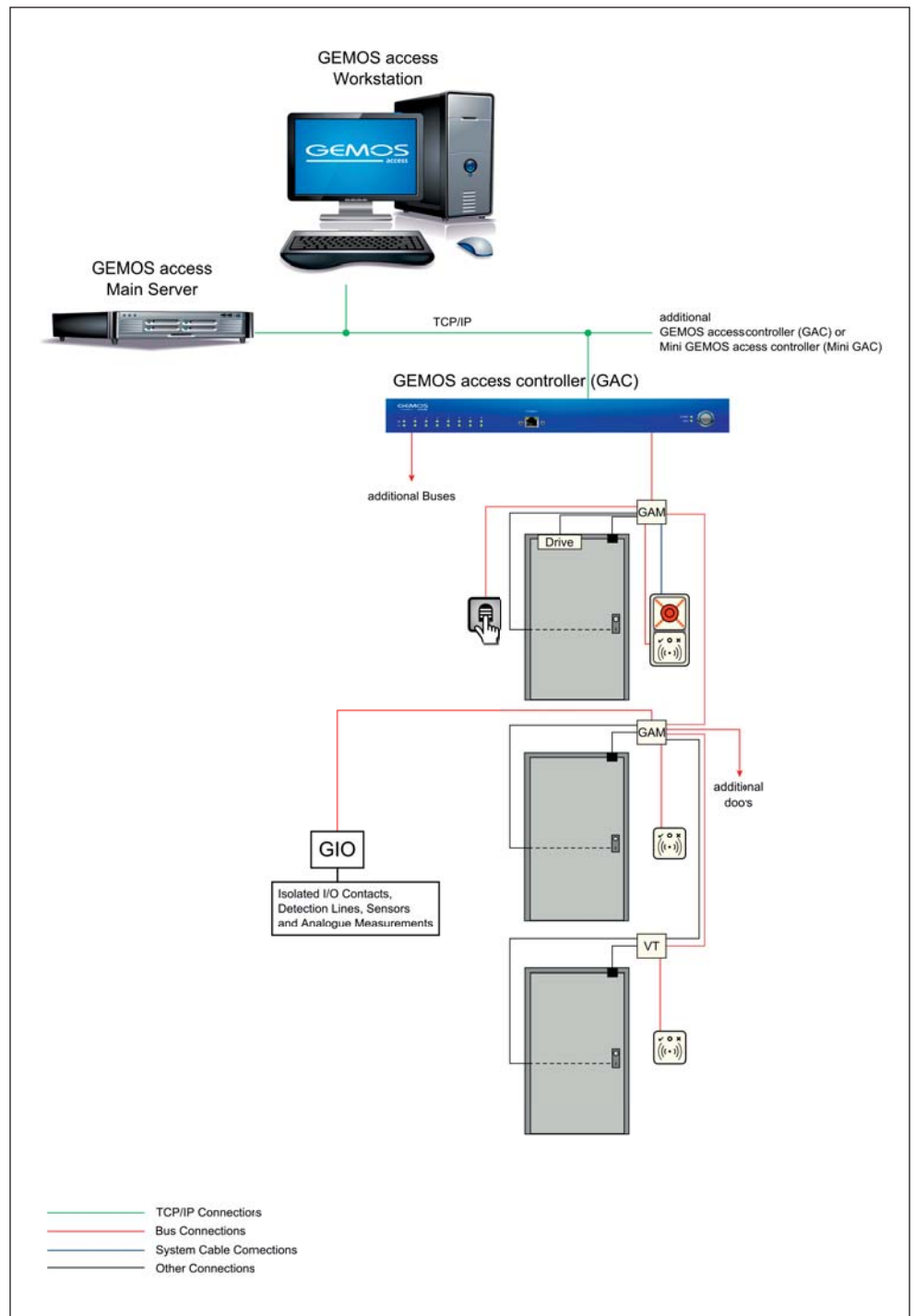
It is possible to implement numerous security requirements that have to do with the door with GEMOS access.

Thus, for example, access control, emergency exit control, intrusion detection system and electronic locking can be sensibly and intelligently connected together directly on the door.

GEMOS access provides planning security, since possible upgrades can be integrated directly on the door.

Overlapping of trades is avoided.

Cost intensive double designs are omitted.



GEMOS access system overview

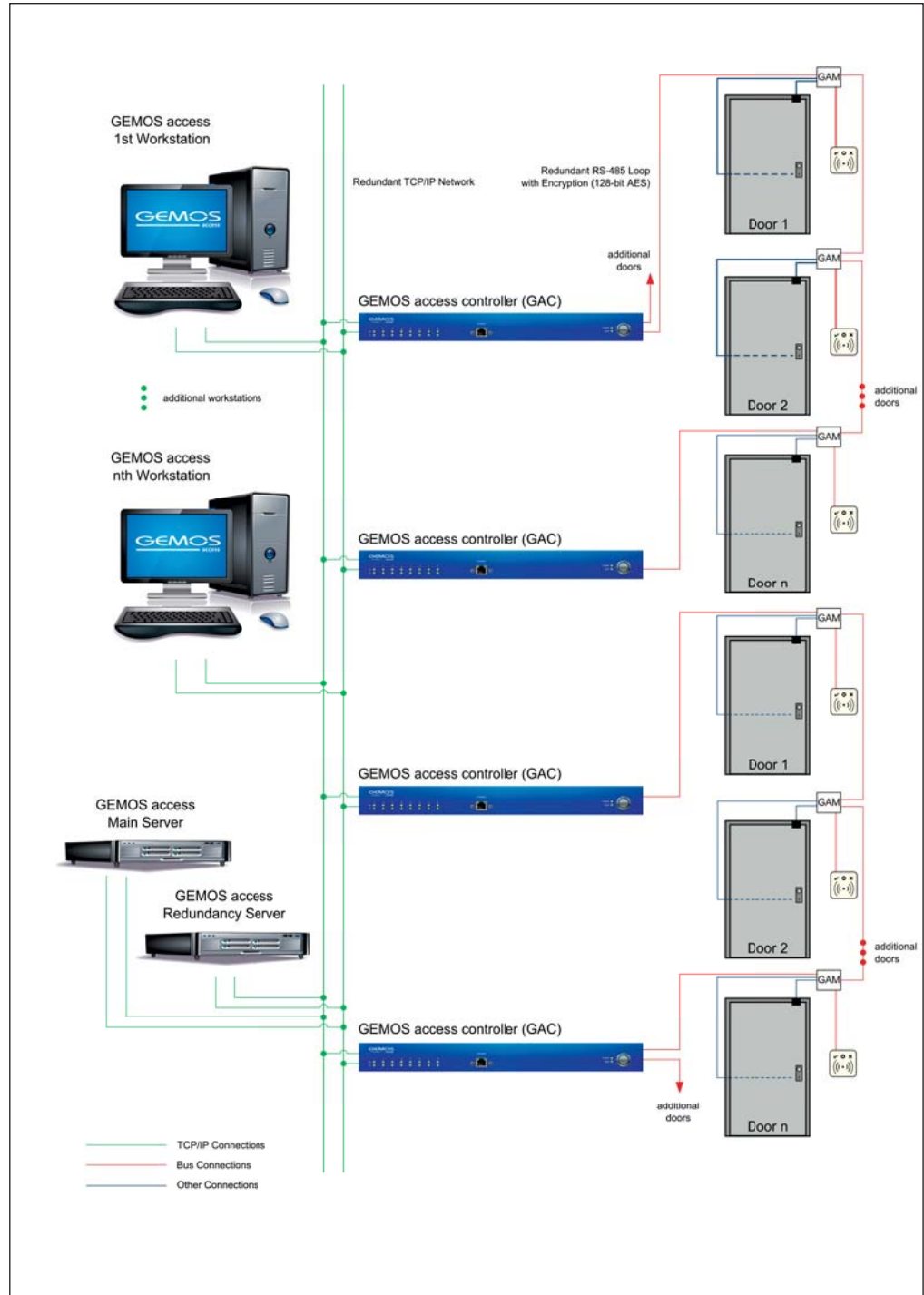
For all security-related components on the door

Simple, structured, secure, also redundant



GEMOS access - System overview

The design of the access control system GEMOS access is simple, well-structured and secure. The web-based client-server structure makes operation via a normal browser (e. g. Internet Explorer or Mozilla Firefox) possible. The server structure can be simple or redundant (hot-standby). Additional decentralised intelligence is linked to the GEMOS access controller (GAC) via a TCP/IP network. The GEMOS access door modules (GAM) can be linked redundantly via the cryptographic encrypted GEMOS universal bus.



GEMOS access redundancy



GEMOS access controller (GAC)

The new high-output GEMOS access controller (GAC) is the central intelligence of all doors connected to it.

The GAC saves all rights, protocols and configuration data and manages the busses. The most modern processor technology and the Linux operating system guarantee high availability and performance. The large SSD allows for safe operation without protocol data loss if the network should fail or if it is operated offline. Thanks to its compact 19-inch/1 rack unit format, the GAC is ideally suited for decentralised installation in IT floor distribution rooms.

Performance features:

- 19" rack with 1 HE (438 × 44 × 320 mm)
- Displays on the front for bus communication
- Powerful CPU
- 2 GB RAM
- Incl. operating system, firmware on included SSD
- Two redundant Ethernet ports
- Ethernet service port on the front
- Connections for monitor, keyboard and mouse for service purposes on the back
- USB 2.0 ports on the back
- Two high-quality controlled fans
- Space for installing a power supply
- For up to 8 GEMOS universal busses (via micromodules)
- All bus ports as insertable screw terminals on the back

Accessories:

- Installed power supply
- Redundant power supply
- Micro module for GEMOS universal bus



GEMOS access controller (GAC) front view

Networked access control system

Ethernet all the way to the door!



Mini GEMOS access controller (mini GAC)

The mini GEMOS access controller (mini GAC) serves for connecting doors directly via Ethernet in connection with a GEMOS access module (GAM).

Up to four GAMs and eight readers can be connected to a mini GAC as a smaller variation of the GEMOS access controller (GAC).

Through the use of two mini GACs per bus, bus redundancy is attained. Therefore, various electronic door components can be reliably connected.

The mini GAC can be used as the central intelligence for GEMOS access and still ensures door functionality even without an active Ethernet connection.

Performance features:

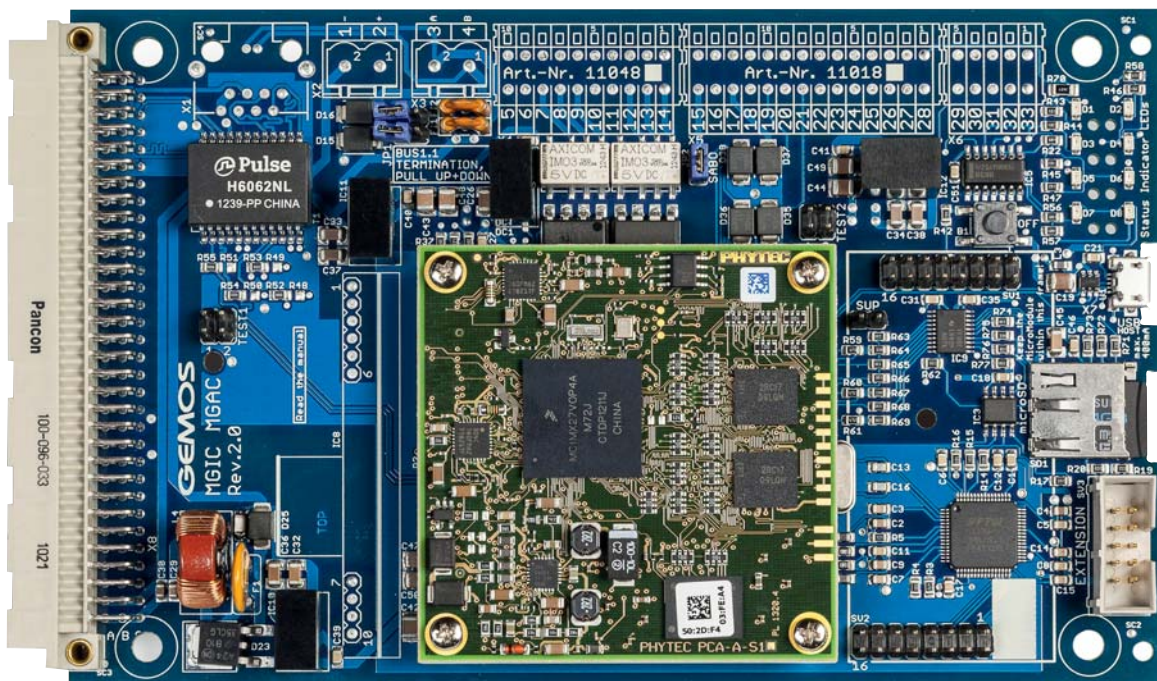
- 1 TCP/IP network connection (RJ45)
- Modern microcontroller technology
- SD card for user data
- Ring bus operating mode when using 2 mini GACs
- 128-bit AES encrypted transmission (optional)
- Up to 4 GAMs and 16 readers can be connected
- Designed as rack for 19-inch installation or as housing variant (e. g. IP65 or DIN rail housing)
- 1 connection for GEMOS universal bus

Inputs:

- up to 3 digital inputs
- up to 2 bipolar optocoupler inputs (e. g. for monitoring voltage)
- 1 sabotage line

Outputs:

- up to 2 relays with a nominal current of 0.5 A
- All relay outputs are designed as normally open (NO) and normally closed (NC) contacts (two-way contacts)



Mini GEMOS access controller (19-inch installation)



GEMOS access module (GAM)

The GEMOS access module (GAM) manages all imaginable appliances and installations on a door, regardless of the respective manufacturer. A multitude of possible connections and functions provides superior flexibility and planning security. Housings for various applications, cap contacts, individual devices etc. round off the line.

Performance features:

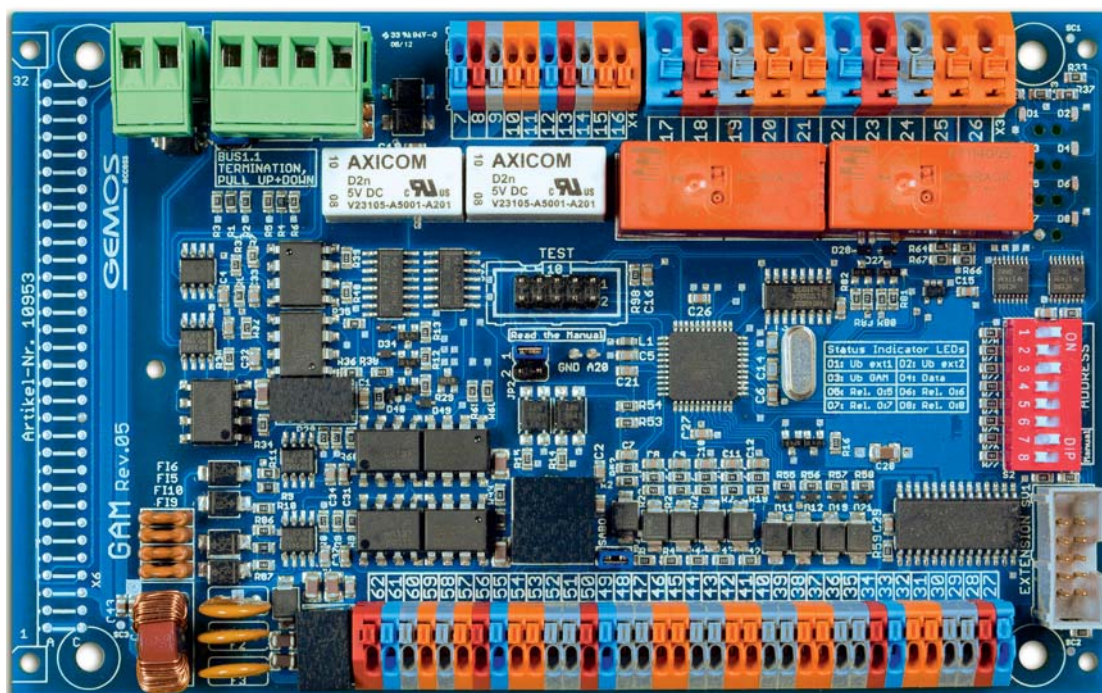
- Most modern microcontroller technology
- Control of up to 2 doors
- 128-Bit AES encrypted transmission (optional)
- Redundant capable via the bus hub and integrated bus separator
- Cable lengths of up to 1 km between modules are possible thanks to amplification and potential separation of busses
- Firmware update possible with running system (via access bus)
- Serial interface for the connection of door bus components, e.g. BKS-NET, with GAM serving as transcoding module
- Integrated (proprietary) PLC functionality
- Colour-coded terminal clamps for simple, tool-less installation
- One-man inspection in connection with the service tool
- Manufacturer-neutral card reader link

Inputs:

- 4 binary inputs
- 2 potential-free optocoupler inputs
- 4 analogue detection lines
- 1 sabotage line

Outputs:

- 4 relay outputs
- 4 binary outputs



GEMOS access module

Modular hardware assortment

Accessories for every installation situation



GEMOS and GEMOS access components

While developing our hardware products, we have placed special value on user-friendly installation. This just shows how helpful our technicians are with their many years of experience. The result is a product line that provides a large selection of options in order to be able to quickly and professionally install in any situation.

A 19 inch component is provided for centralisation. For decentralised installation, a DIN rail housing module and surface-mounted housing are available.

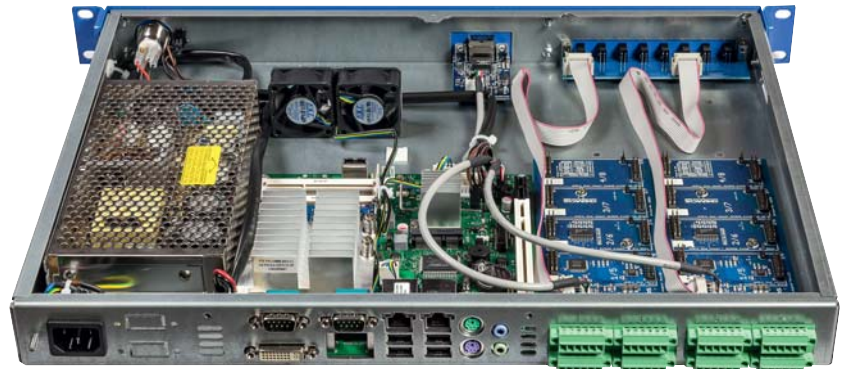
A selection of approved and compatible accessory components like power supply units, special micro modules, converters and cap contacts round off the line.



Surface-mounted housing



Micro modules



GEMOS controller back



DIN rail mounting set for GEMOS modules



19" rack with power supply back board



19" power supply 12V/3A

Viewing all door statuses at a glance

Wireless via mobile phone or laptop thanks to Bluetooth



GEMOS access service tool (GAST)

With GEMOS access modules (GAM) connected to the bus, checking doors is possible via the network. What if someone would like to know if everything works during installation? The GEMOS access service tool (GAST) was developed for this purpose. It provides four functions for making work easier. In the stand-alone operating mode, the tool indicates all input and output statuses with LEDs. The option of using the device by connecting it to a smart phone via Bluetooth is especially convenient. The customer's mobile phone turns into a powerful testing device thanks to the software that is included in the delivery. So even looking for malfunctions is enjoyable. As an alternative to the telephone, the GAST can also be connected to a laptop or Net-book via USB. The GAST also has an additional interface for direct connection to the GEMOS universal bus.

Performance features:

- Connection to GAM via I²C-Bus (ribbon cable)
- 23 LEDs to visualise all relevant statuses
- Bluetooth for the connection to a smartphone or a laptop
- USB and RS 485 interface



GEMOS access service tool (GAST)



Visualisation of the GEMOS access service tool (GAST) on the screen

Networked locking systems

Active reading systems – online via radio



GEMOS access – Connection of SE security double knob cylinders

With its new energy concept, the SE mechatronic locking system guarantees an especially high number of locking cycles per standard battery. It can be easily and flexibly adapted to different door requirements thanks to a large number of cylinder versions. Up to 64 cylinders are connected via wireless nodes with the online version that can be connected via Ethernet or system bus to GEMOS access. This way, common authorisation management of doors with card readers or SE cylinders is possible. Rights are saved both in the GEMOS access database and on site in the cylinder. This process also guarantees secure access to every door, e. g. for the fire brigade, if the network or wireless connection does not work.

Performance features:

- SE cylinders: 350,000 locking cycles per standard battery
- Up to 64 cylinders per wireless node
- Connection of wireless nodes to GEMOS access via Ethernet or RS-485 bus
- High security due to the patented SE reading system
- Superior availability through storage of access rights and events in the cylinder
- Joint administration of access rights
- Immediate validity of changed access rights
- The different door requirements can be optimally fulfilled thanks to a multitude of cylinder versions



SE double knob cylinder



GEMOS access – Connection of FTNT10

Ensuring the functional interplay of various products on a door 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 and the patented BKS-NET bus. A visual highlight is the combination of a card reader and terminal in a two-section frame. The usual key switch can be omitted here. Activation and acknowledgement are effected locally by card without the necessity of additional wiring or programming. Within the scope of assigning rights, people can receive specific acknowledgement rights. Management of additional keys is now a thing of the past.

Performance features:

- Only two visible modules
- No extra keys required
- Simple wiring with 4-wire bus
- Acknowledgement by card or transponder
- Joint programming and logging within the GEMOS access software



Card reader and terminal in a two-section frame

For smaller to medium requirements

All in a box!



GEMOS access compact

GEMOS access compact was especially developed for small to medium-sized applications. In this variation, the entire software is pre-installed in the GEMOS access compact controller (GAC). The system can be immediately used as soon as the peripheral items are connected and the IP address is entered. The existing PC can be used to operate and install the system. Software installation is not required, as PC and controller are connected via the web interface of GEMOS access. The GAC controller and the data stored in its memory are securely accommodated in a cabinet in the computer room or in a floor distribution room.

Performance features:

- Low space requirement based on 19"1U design
- No additional software required
- Easy set up
- High reliability and availability through the use of professional components and flash memory
- Upgrade to full version possible
- By connection to the management system GEMOS, a functional extension and visualization is possible
- GEMOS access controller, bus modules including housing is included!
- Integration BKS NET (e.g. escape door control FTNT)

System limits:

- Max. of 1 controller (GAC)
- Max. of 16 doors (max. 2 readers per door.) on 4 buses
- Max. of 200 identification cards
- Max. 10 time frames with one calendar
- Max. 2 intrusion detection alarm zones
- Max. of 10 time zones with calendar
- Max. of 16 doors (max. 2 readers per door.) on 4 buses
- Max. of 2 workstation licences



GEMOS access compact registration mask



GEMOS access compact



Planning competence and our own development – our services for you

The foundation of the planning concept that is available to customers and consultants is based on years of experience in handling large projects.

Our company is happy to support you with the creation of the required project structure on the basis of the project definition, and with the estimation of the expenses involved.

Our scheduling and financial planning knowledge is based on a history of large projects that have already been implemented in the field of arena construction, industrial facilities, penal facilities as well as technical equipment for office complexes and hotel construction.

Due to the fact that we develop in-house which means very short communication paths and meeting of deadlines, the project risk is considerably reduced.

Comprehensive offer:

- Non-binding and free initial consultation
- Qualified project management
- Creation of project-oriented scheduling
- Budget and financial planning
- Implementation of danger and risk analysis
- Creation of safety concepts
- Creation of project-oriented functional specification documents
- Work and installation planning
- Creation and processing of CAD drawings
- Project-oriented interface development
- Creation of individual user interfaces
- Implementation of training courses and workshops



Partner training program for GEMOS & GEMOS access

The GEMOS Academy offers various training programs for partners to get the knowledge and opportunity to sell, plan, implement and operate GEMOS and GEMOS access with all specifications.

ela-soft provides this full complement of training programs at ela-soft Berlin & Frankfurt training facilities. In addition to the full GEMOS Partner Training Program, consisting of 3 trainings (sales, technical 1 and technical 2) as well as refresher workshops, ela-soft also offers a consultant and an access control training performing it as standard classroom type, distance type and web type.





Qualified and experienced technicians are the key to success

An experienced team of engineers and technicians are available to guarantee competent support throughout all phases of the project.

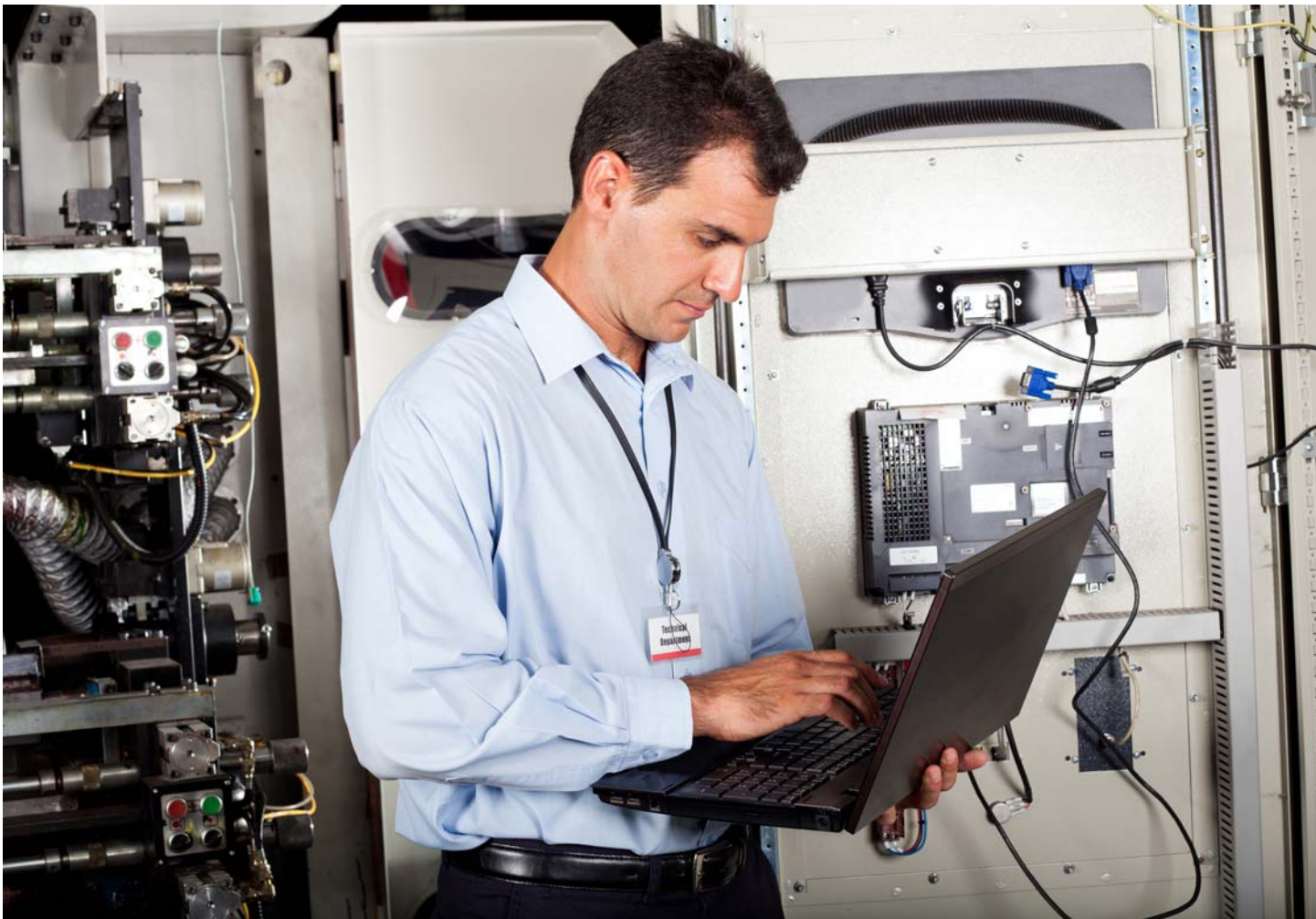
Thanks to detailed project controlling, costs for customers are optimised and processes coordinated to achieve maximum work progress.

Highly specialised technicians make it possible to respond quickly to project-specific changes and to prevent irritating delays in the process.

The creation of functional specification documents that accompany the project, and also the constant contact between project management and customer always guarantee the highest quality, from planning through to the successful commissioning of the entire installation.

Project development:

- Determining basis information
- Pre-planning with cost estimation
- Project planning and cost calculation
- Implementation planning
- Project monitoring
- Project support and documentation



Consulting & Service

Software Maintenance Agreement



Satisfied and secure at all times!

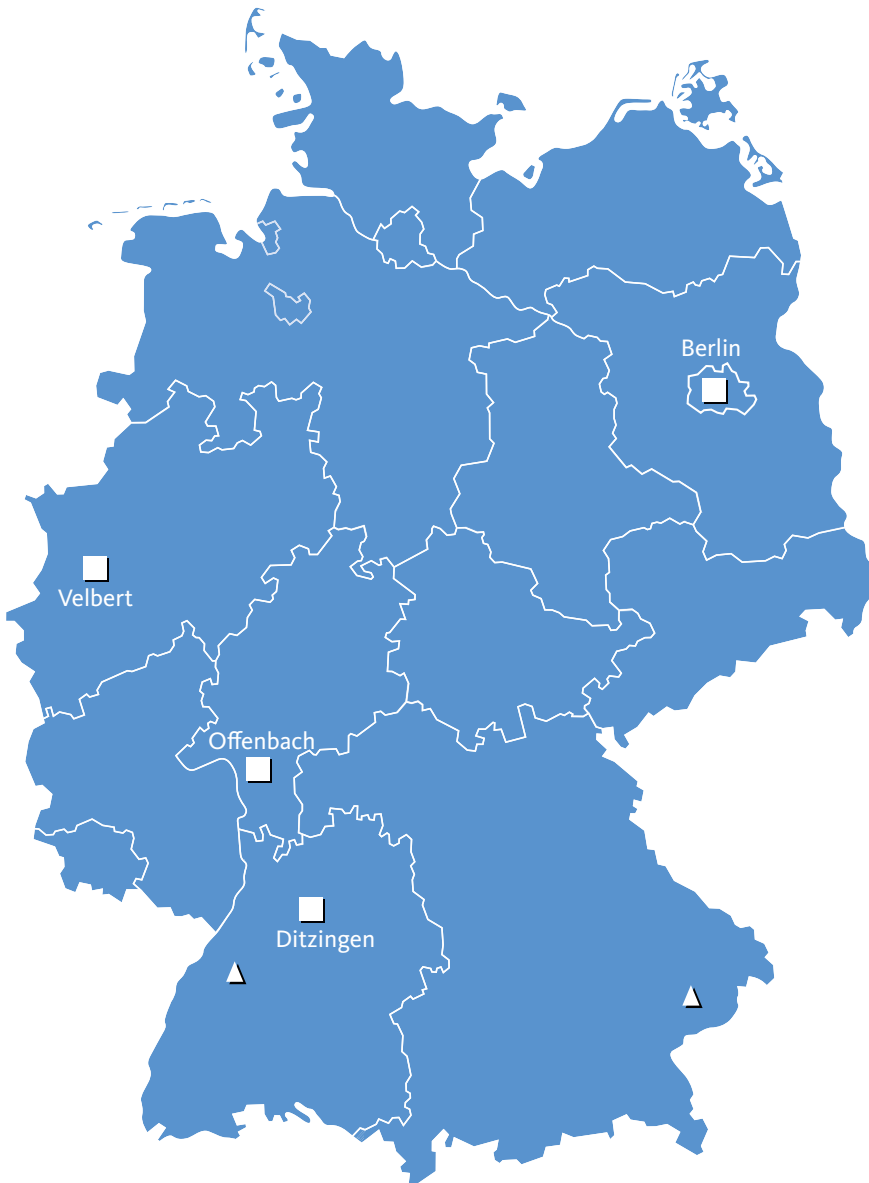
After successful commissioning and approval, we offer our customers the round-the-clock security of a comprehensive maintenance package that meets customer and project requirements in every detail. The customer can rely on planning security with regard to operating costs and, in case of problems, on fast reaction times when rectifying faults.

Wear and malfunctions are quickly detected thanks to consistent onsite maintenance, so that installations downtime and additional costs to the operator can be avoided.

Service offer:

- Individual service level agreements (SMA)
- Technical telephone support
- Software maintenance (updates)





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