SIGUR | ACCESS MANAGEMENT

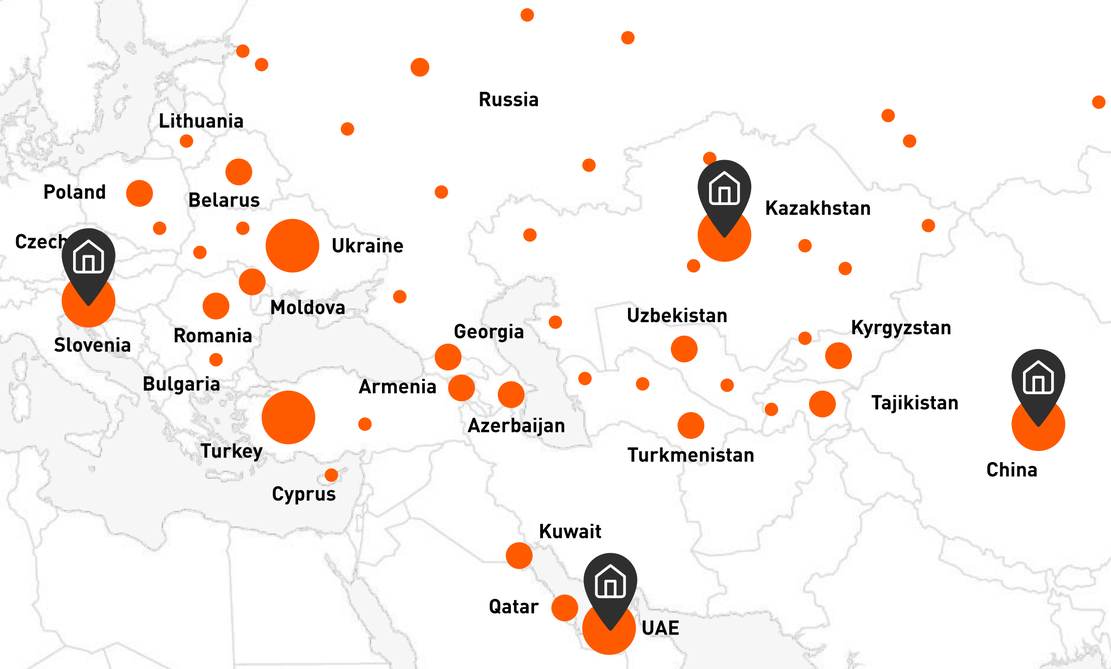
Access control system



WE DO MORE THAN JUST DEVELOP AND PRODUCE ACCESS CONTROL AND MANAGEMENT SYSTEMS. OUR APPROACH IS ROOTED IN ADDRESSING THE MARKET'S DEMAND FOR A UNIFIED, COMPREHENSIVE SECURITY SOLUTION, WHERE ACS SMOOTHLY INTEGRATES AS A VITAL COMPONENT BY CONTINUALLY EVOLVING THE SOFTWARE PLATFORM, WE ENHANCE SYSTEM FUNCTIONALITY, ENABLING USERS TO FULLY REALIZE THE POTENTIAL AND CAPABILITIES OF THE INTEGRATED SIGUR PLATFORM.

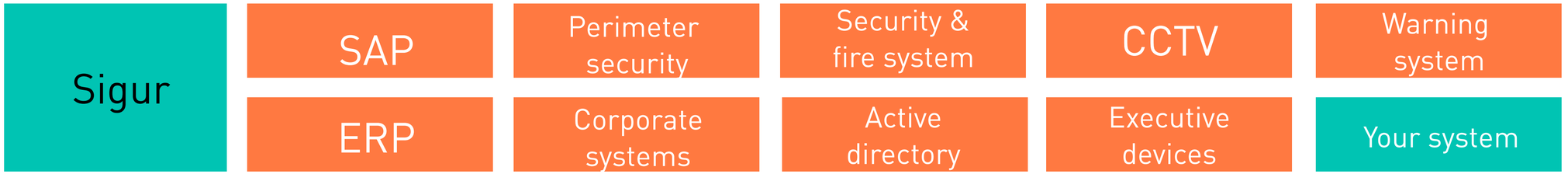
ALEXANDER KURILIN
SIGUR GENERAL MANAGER

Since 2006, Sigur has been a trusted tool for building security systems of any scale and complexity.
Its extensive integration capabilities allow it to interact with various components like Situators, ERP systems, databases, security and video surveillance systems (with analytics), and more, enabling the creation of sophisticated security solutions.
Over 20,000 projects, ranging from simple to highly complex, have been implemented using Sigur equipment. Our clients include industrial enterprises, oil and gas companies, banks, airports, educational institutions, and businesses of all sizes.
Today, Sigur equipment is successfully operating in more than 40 countries.



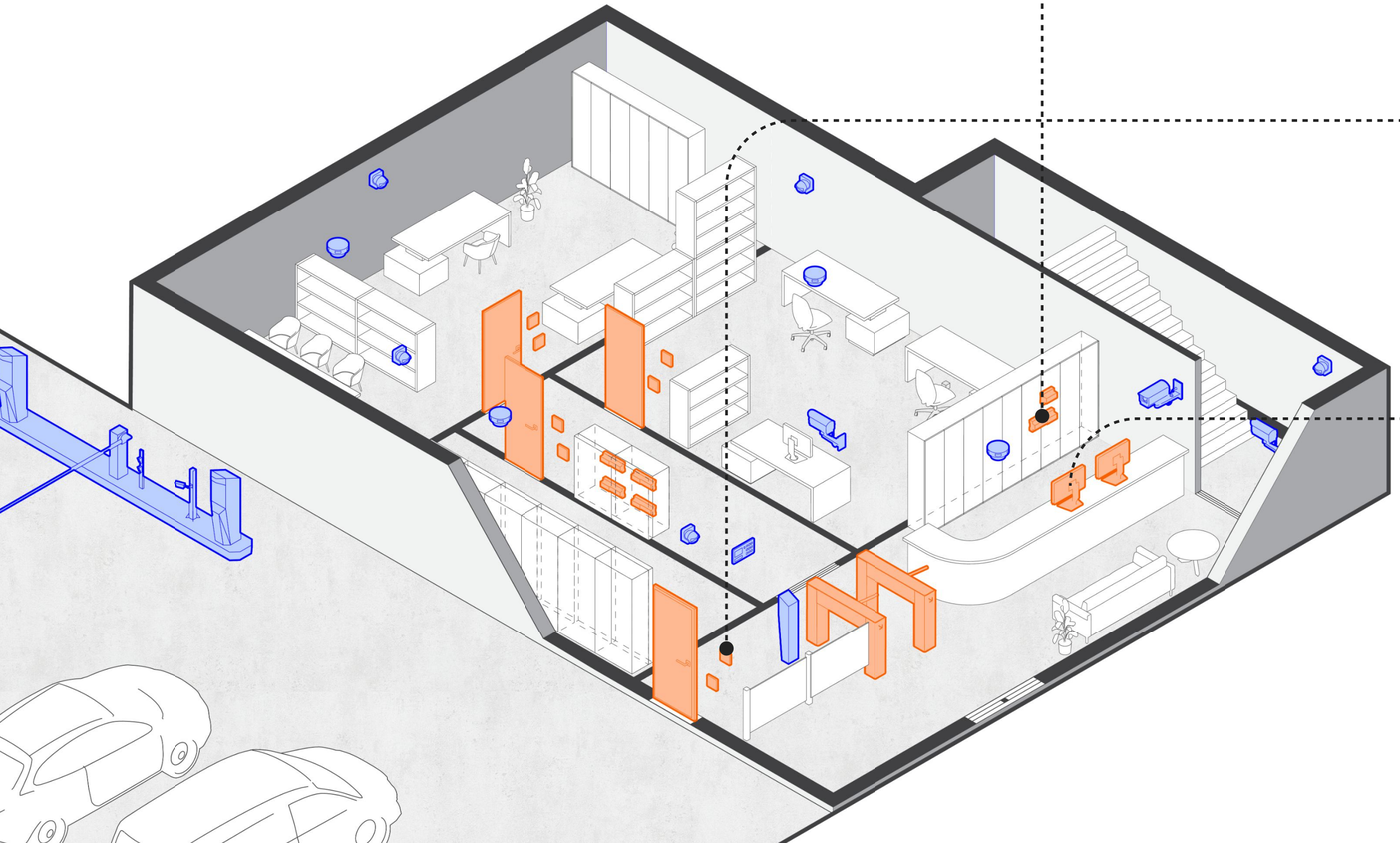
Sigur as a part of the infrastructure any company

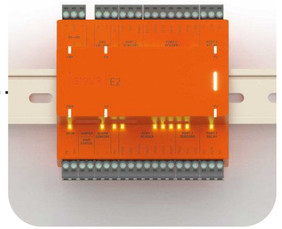
Sigur is an integral part of the facility infrastructure, providing access control and full interaction not only with other security systems, including video surveillance and fire alarm systems, but also with corporate systems using at the facility.



Sigur system

A physical access control system as a part of the security system





Controller manages the PACS equipment such as doors, barriers, bollards, and etc.

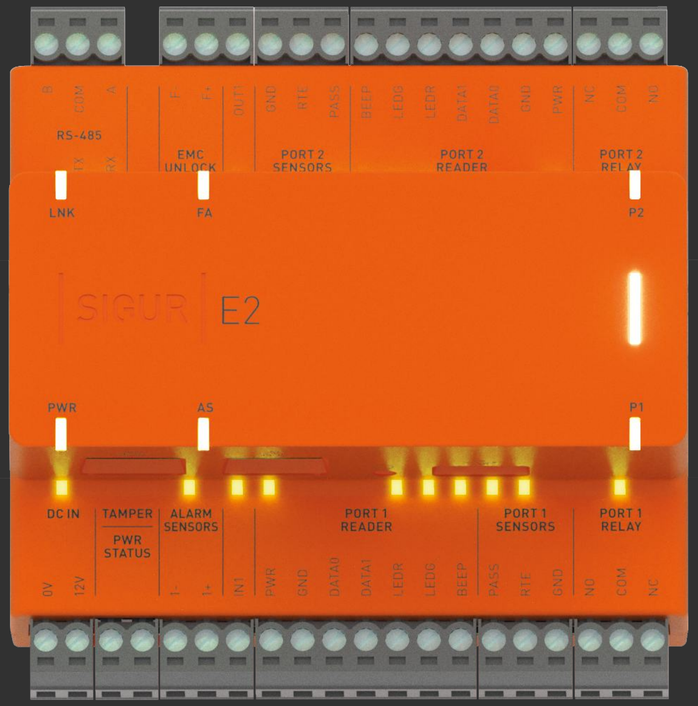


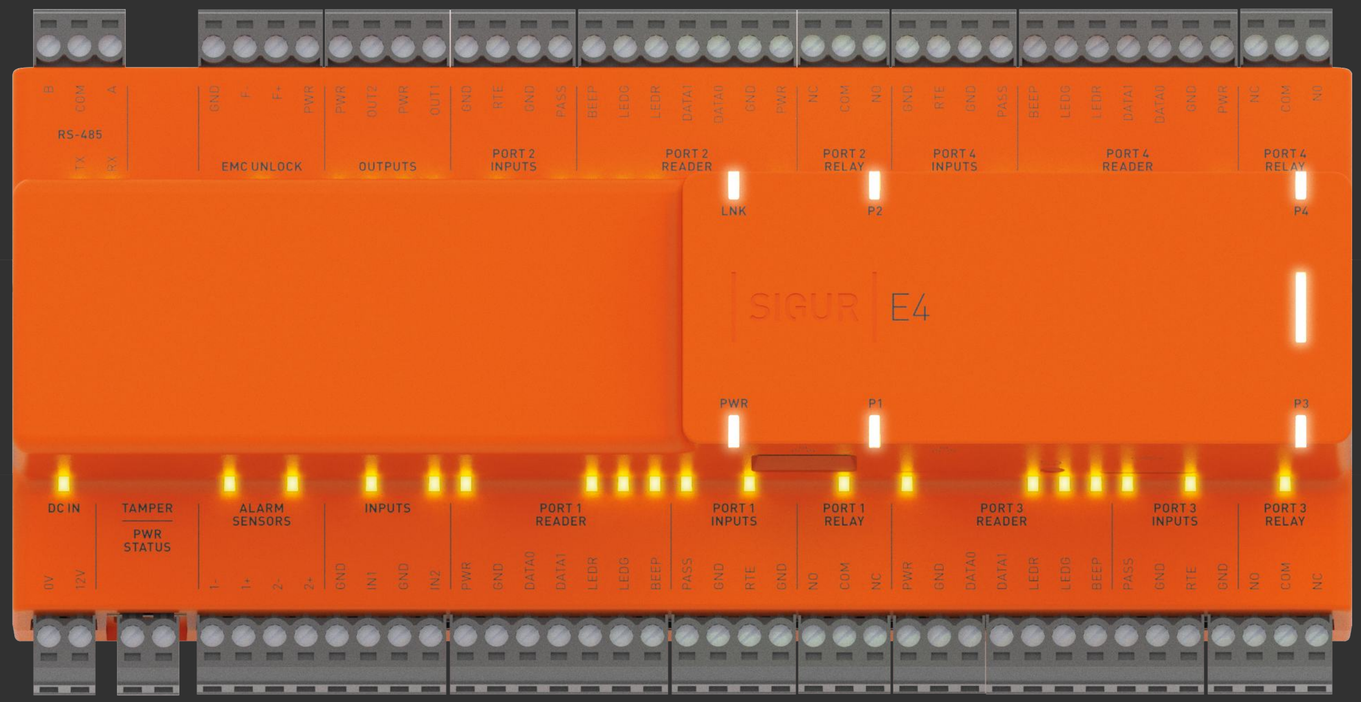
Reader grants access by the card or smartphone presenting



System administration includes access rules and policies, time and attendance, system events monitoring, etc.

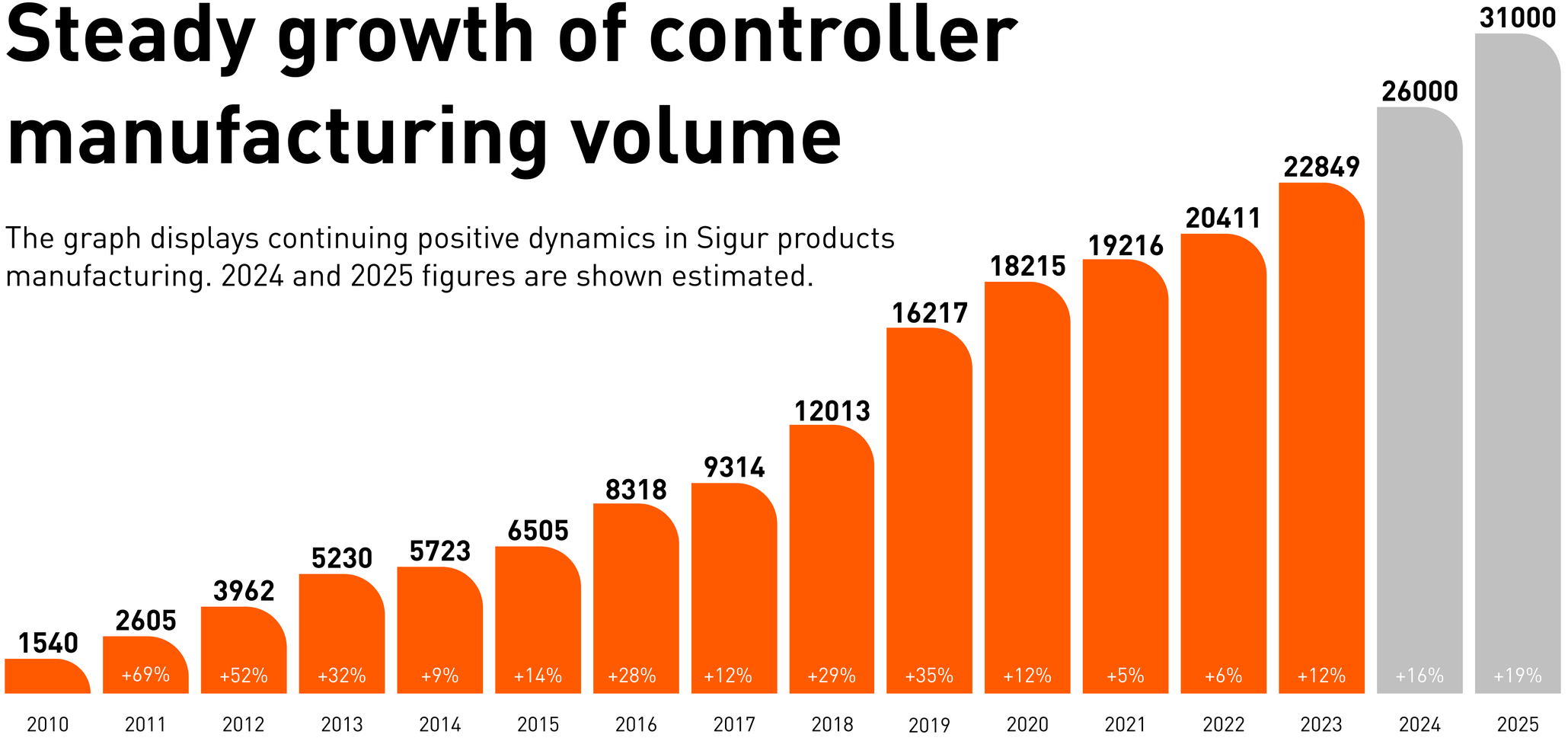
Controllers with adjustable access logic for physical access control systems

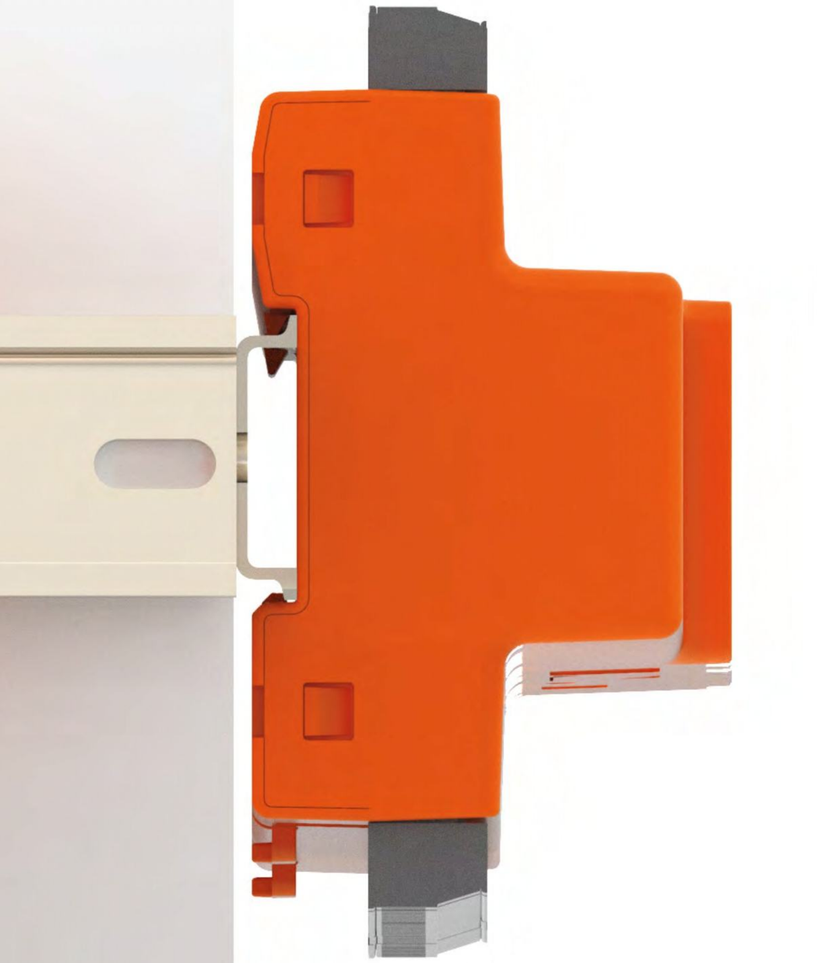




Steady growth of controller manufacturing volume

The graph displays continuing positive dynamics in Sigur products manufacturing. 2024 and 2025 figures are shown estimated.



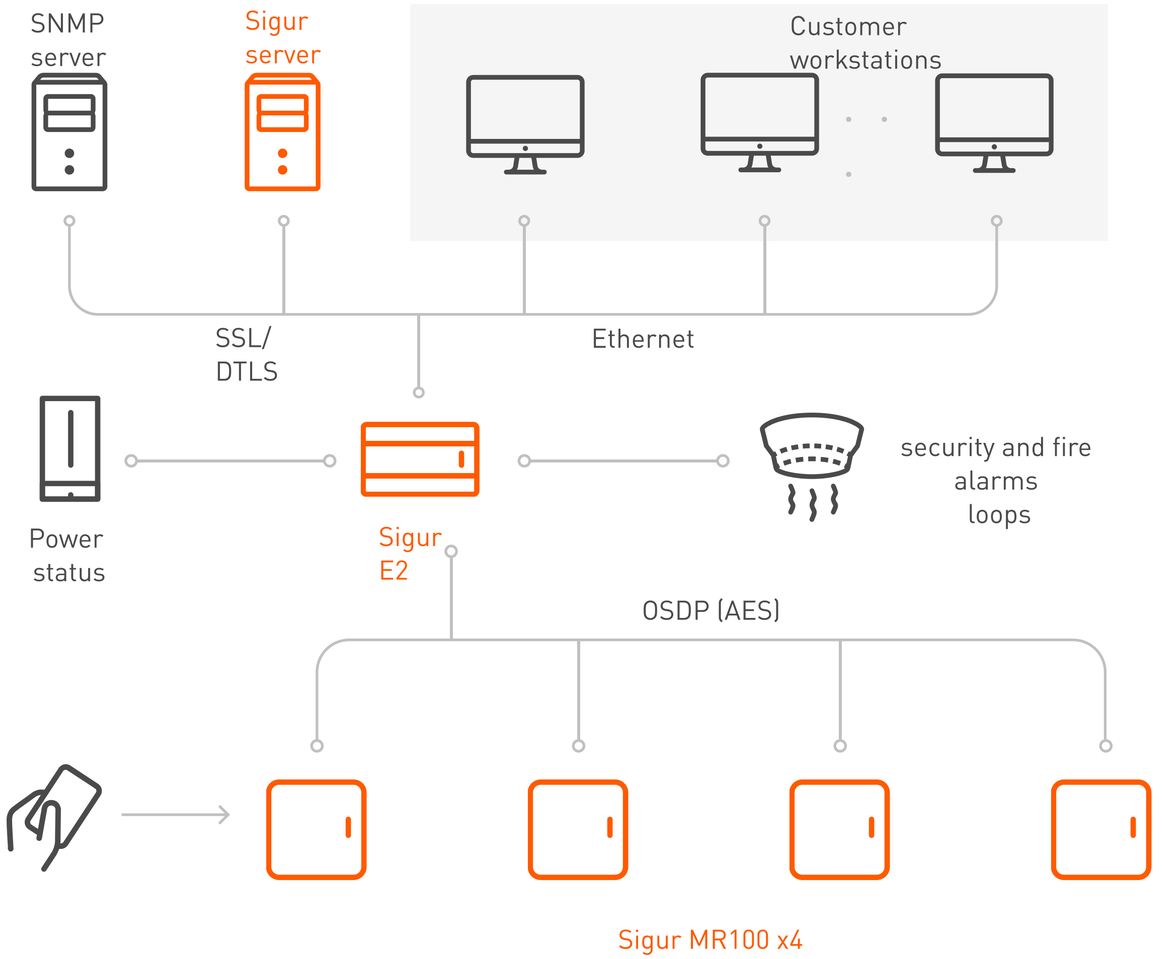


SPECIFICATION

Description	Sigur E2	Sigur E4
Number and type of checkpoints	Up to 2 checkpoints	Up to 4 checkpoints
	Doors, turnstiles, gates or barrier arms	
Server networking interface	Ethernet	
Reader interface	OSDP Wiegand with various packet lengths (26, 34, 36, 37, 42, 58)	
Number of readers	Up to 4 via OSDP Up to 2 via Wiegand	Up to 8 via OSDP Up to 4 via Wiegand
Connection to fire alarm	Two-wire galvanically isolated line to connect several controllers to a single fire alarm cable. When the alarm sets off, the cable connected to the controllers will be tripped.	
Connection of the security alarm cable	1 two-wire line	2 two-wire lines
Connection of sensors and detectors	Up to 5 sensors and detectors	Up to 10 sensors and detectors
	Open collector, dry contact	
Supply voltage	10V...15V	
Current	max. 250mA	max. 300mA
Wattage	max. 3.75W	max. 4.5W
Controller protection circuits	Overvoltage and reverse polarity protection. Complete galvanic isolation of Ethernet connections. Protection of all input and output interfaces against overloads and overvoltages.	
IP rating	IP20	
Temperature range	-40°C to +50°C	
Case material	ABS plastic	
Installation	TH35 DIN rail	
Dimensions	108 x 90 x 60mm	215 x 90 x 60mm

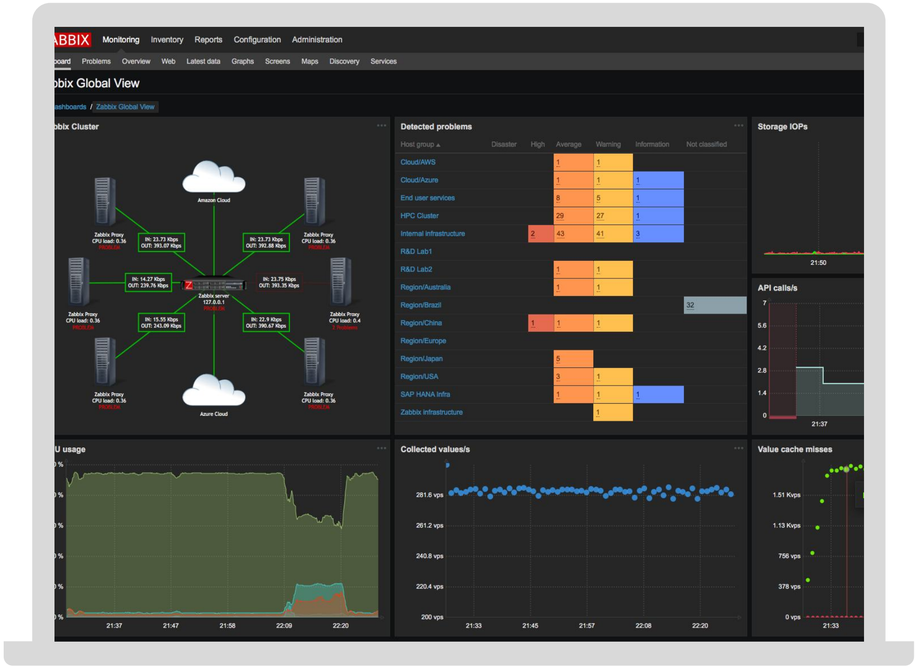
Security

With Sigur, you can be sure that your data is secure at every level: from the transmission of information from the ID to the reader - from the reader to the controller - from the controller to the system database. For example, all data transmitted between controllers and the server is securely encrypted according to SSL/TLS protocol.



SNMP- monitoring

Sigur controllers support standard SNMP protocol for monitoring equipment status. Now you can display all the information you need on Zabbix or similar systems - from voltage to voltage from power supply voltage to the status of all inputs and outputs. of the device.



E2/E4 Easy mounting



- Customers can attach the device to a standard DIN rail using the latches to a standard DIN rail.
- Ability to pre-wire equipment to the removable terminal blocks and then insert them into the corresponding connector on the controller.

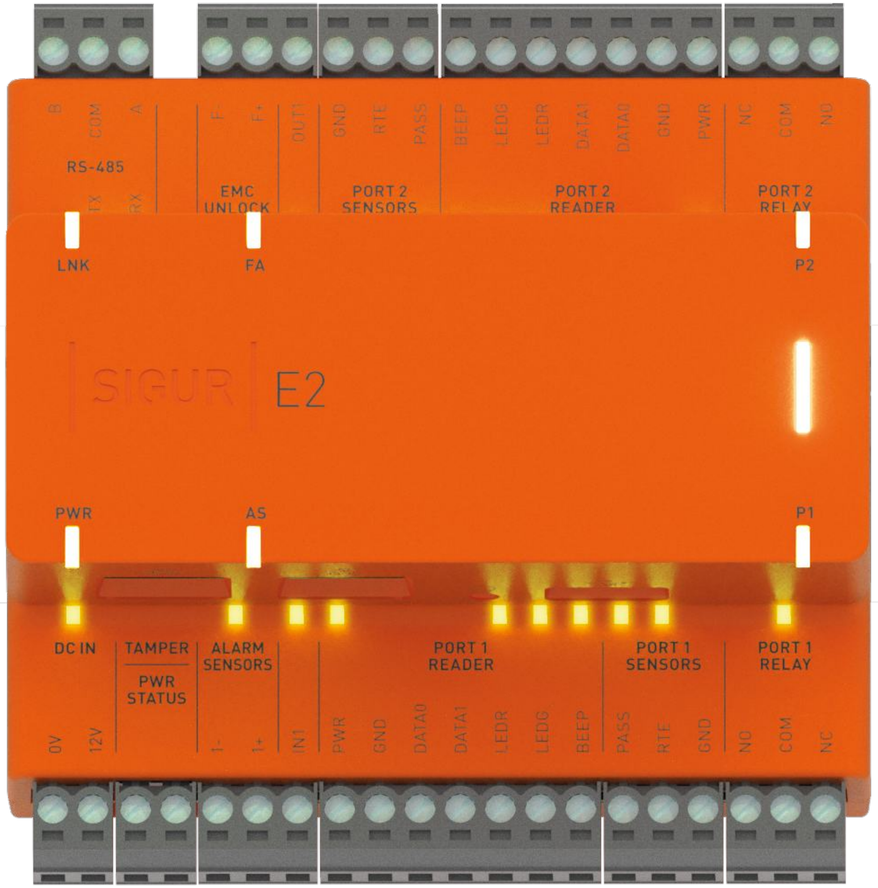
Additional functiones

Advanced protocol capabilities:

- - DHCP
- - Support connection of UPS information outputs:
- - 220V/Battery power status
- - Battery status (normal/fault)
- - Separate physical output for Beep line for Wiegand connection - it can also be used for MR100,

By assigning any reaction

- - Service indication
- - Removable terminal blocks



Multi-reader for authentication with cards and smartphones



Winner of the international Red Dot Design Award: Product Design 2020

Sigur access management



SPECIFICATION

Modifications	MR100 Lite	MR100	MR100 Multi
Identifier types	Mifare (Ultralight, Classic, Mini, ID, DESFire, Plus), including secured modes SL1 and SL3 of the Mifare Plus, secured mode of the Mifare Classic. MasterCard or Visa contactless bank cards in UID reading mode with static UID or in secured mode with Mifare Classic or Plus emulation corresponding to NXP "AN10833 MIFARE Type Identification". All ISO14443-A standard identifiers in UID read mode.		
		Smartphones (Android, iOS) using BLE technology (with Bluetooth 4.0 or higher). PAN number of a bank card using EMV technology (MasterCard, Visa including those added to e-wallets: Google Pay, Apple Wallet, Samsung Pay).	
			EM Marine, HID Prox II
Output interfaces	Wiegand (26, 34, 58), RS-485 (OSDP)		
Card reading range	Up to 9 cm (depending on the card type and operating mode)		
Smartphone reading range	Up to 10 m line-of-sight		
Indication unit	Multi-color LED PCM 16 bit 44 kHz mono (.wav) 3 control inputs (when connecting readers via Wiegand) OSDP Indication control (when connecting readers via OSDP)		
Ingress protection rating	IP 65		
Working temperature range	-40 ... +60°C		
Diagnostic tools	Built-in self-diagnostic tools Housing opening sensor system Temperature sensor Digitizing supply voltage		
Dimensions	90x90x12 mm		
Power supply voltage	9 ... 28 V		
Consumption current	130 mA		

Easy reader mounting

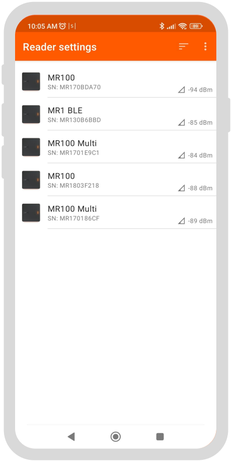
- Ideal installation on any surface;
- Unique bayonet mount;
- Installation on bumpy wall (through wall mounting strip use);
- Setting and updating without disassembly (using mobile app);
- Health monitoring and scratch resistant surface;
- Scotchlocks are included in device package (3M ScothLock);
- Mounting template is included in device package.

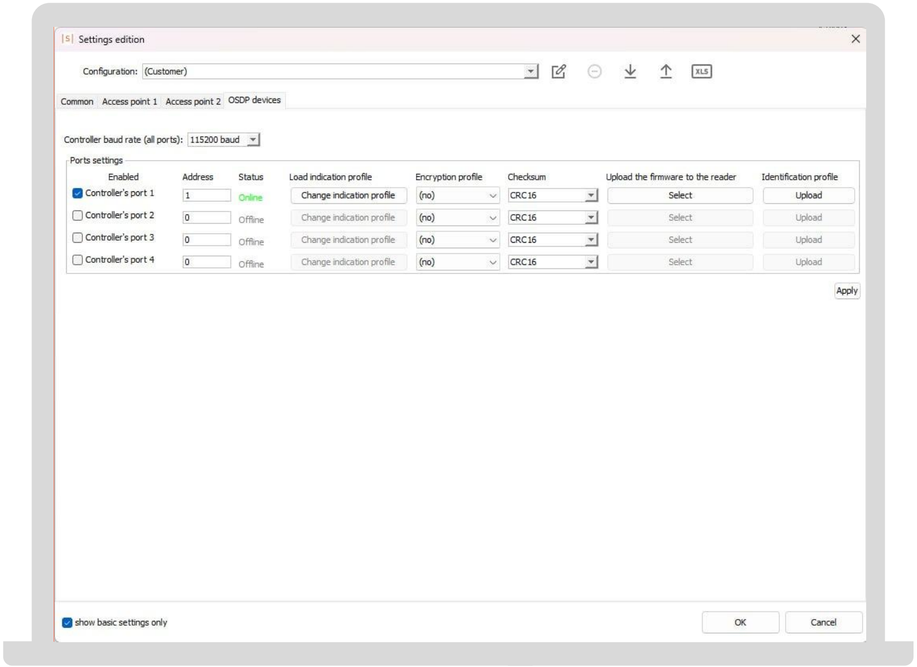


Easy configuration

- Configuration using master-card;
- Configuration using app Sigur Config;
- Configuration using Sigur Supervised Device Protocol (SSDP).







Mobile access

- Support using smartphones running iOS and Android;
- Handsfree working mode;
- SDK.



Interaction with bank cards

- In Sigur any bank-card may be used as identifier: MasterCard, Visa;
- Identifying with campus card is realized in UID reading mode, in Mifare emulation or by using EMV app.



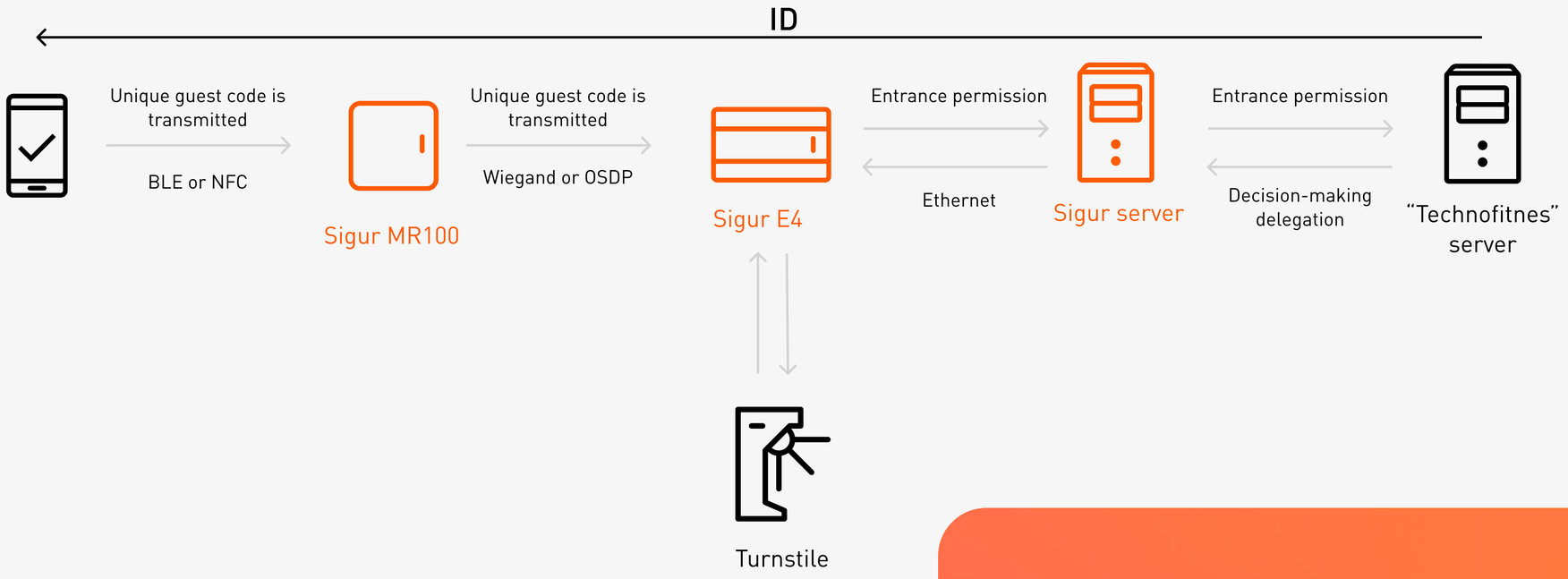
Sigur SDK

- Ability to embed the reader interaction mechanism into customer app
- Ability to self-define the identifier path and its operation on the smartphone



SDK use project example

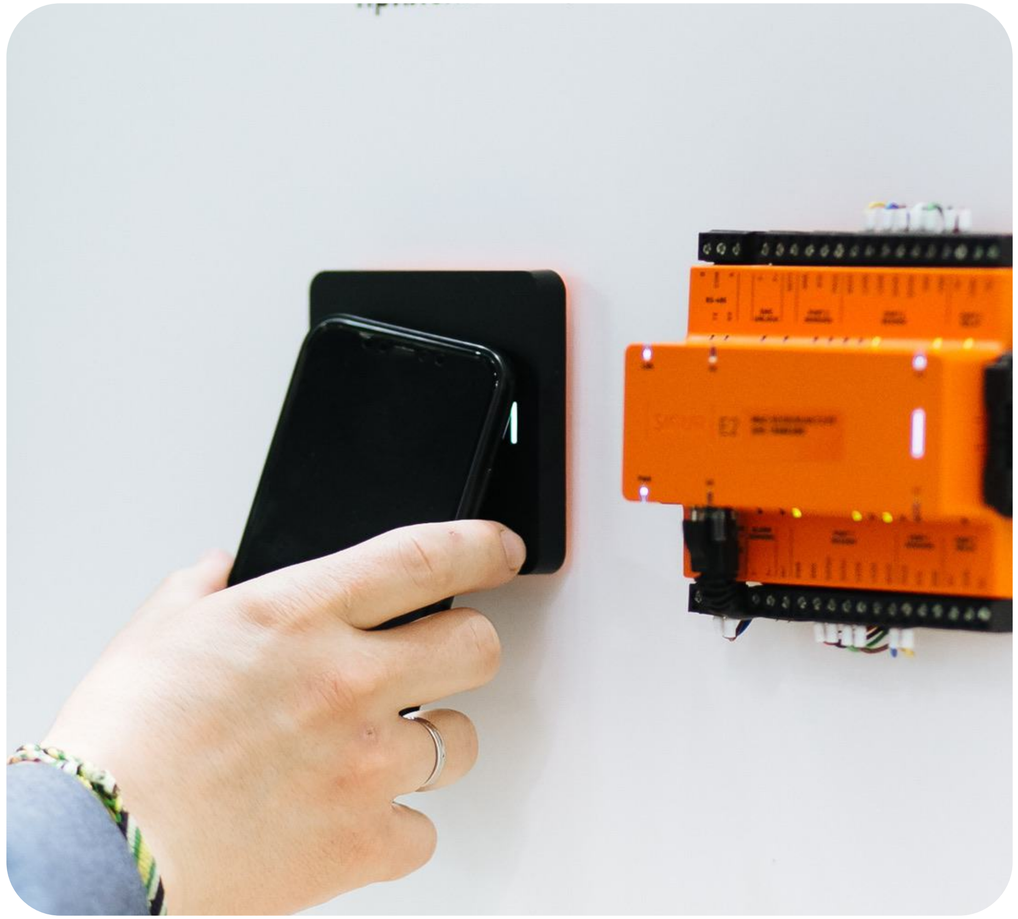
Technofitness is an innovative project, which is a system of access via smartphones to fitness clubs across the country for authorized users with a certain level of loyalty program.



SSDP - possibilities

Sigur Supervised Device Protocol, extended protocol over OSDP with new features:

- Advanced indication control;
- Updating encryption keys on readers from the server;
- Updating reader settings;
- Updating reader firmware;
- Advanced status monitoring (power supply voltage, temperature, firmware version, current settings)



Integration with 3-rd party controllers

Working with standard protocols: Wiegand, OSDP.

Available SSDP-commands:

- Commands to set encryption keys;
- Commands to update reader settings;
- Commands to update reader firmware;
- Commands for advanced status monitoring.



Bundle

Using Sigur readers and controllers together allows customers to utilize the SSDP protocol and see the full potential of the system:

- Advanced display management;
- Updating encryption keys on readers from the server;
- Updating reader settings;
- Updating reader firmware;
- Monitoring of reader connection status



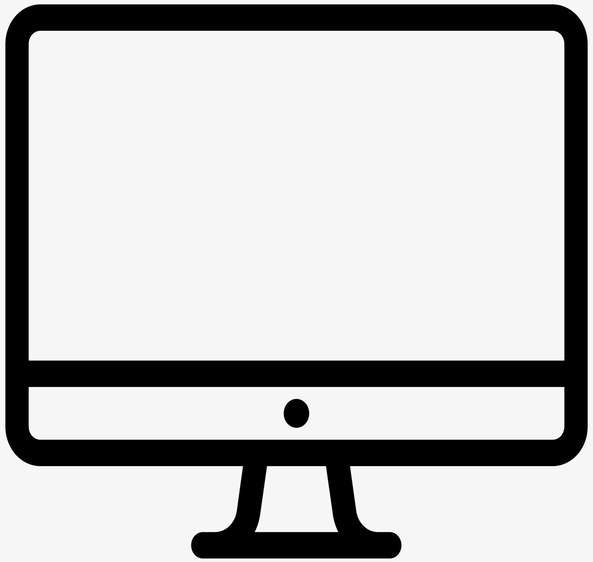
Sigur Software



Sigur access management

Sigur Software

- Client-server architecture:
  users' places number isn't limited;
- My SQL/ MS SQL/ Oracle
  Sigur software supports operating with any databases type;
- Windows/Linux support (Astra Linux is also supported);
- United distributive (Automatically client updating through the server);
- Automatically backup and self-diagnosis



Software licensing

Free software



Standard solution



Additional module 1

Additional module 2

Additional module N

Face verification

Personalized solution



Face verification

Sigur School: supports operating with 10000 identifiers database. The module isn’t extended.

Functionality:

- Access control;
- Remote workstations organization
- (for reports receiving, system
- events online-review);
- SMS-notification for parents;
- Photoidentification (passing person

photo appears on the user screen)

reports receiving and exporting in Excel shields:

- about the students and employees;
- about passages (by cards using or sanctioned by security, about access denial);
- about students or employees location

for now and for any chosen date;

- about users activity;
- attendance report

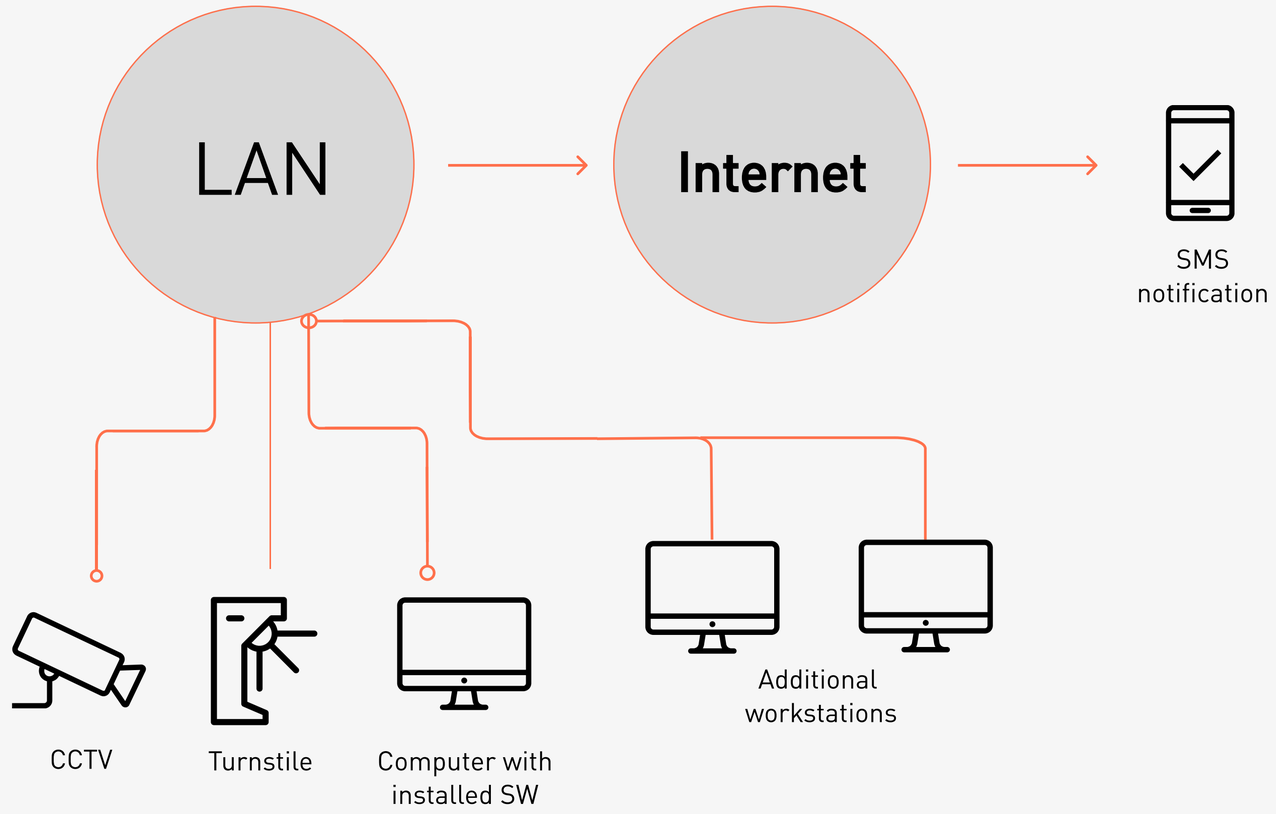
Sigur School

The module consists of:

Computer with installed software

IP-turnstile

Additional workstations



Licensing

Licensed

- number of identifiers
- additional Sigur software modules
- Integrations with third-party hardware made on our side

Non licensed

- number of access points
- number of controllers
- number of workstations

Additional module 1

Additional module 2

Basic module

Additional module N

- Basic module 1000/10000/25000/...
- Time and attendance;
- Integration with HRMS;
- Badge editor;
- Visitor management;
- Document recognition;
- Autopark;
- Response to events;
- Payment system;
- Paid access;
- Data Sync

Basic Module

Logging of system events

real-time monitoring, viewing the archive of events and receiving reports

ACCESS DIFFERENTIATION BY TIME OF PASSAGE

creation of access schedules for a specific employee and their groups

ACCESS DIFFERENTIATION BY ACCESS POINTS

taking into account the direction of passage

SETTING COMPLEX ACCESS LOGIC

autonomous operation of access logic

Sigur access management

Time and Attandance

Setting work schedules for employees, supporting schedules of any complexity.

A complete log of deviations from the work schedule, a list of absences during working hours.

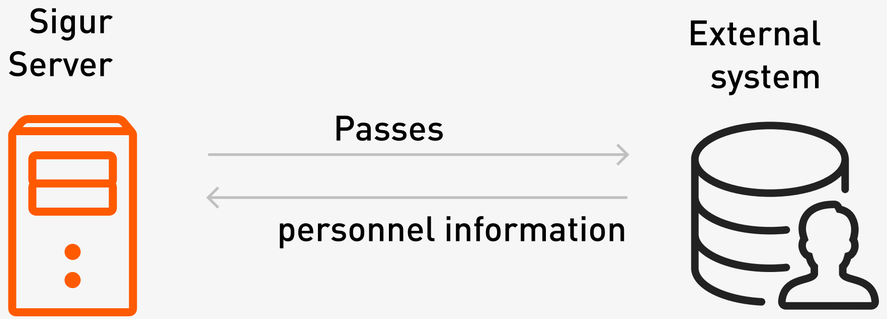
The ability to automatically upload a timesheet, the ability to account for time spent on the fact
or on schedule.

Journal of work discipline violations: late turnouts, early departures from work.

Data Sync

Access control system can be part of an ecosystem:

- Attendance control
- Issuing invitations to visit
- Organization of payment and food control
- The ability to configure the management of ACS by means of web services



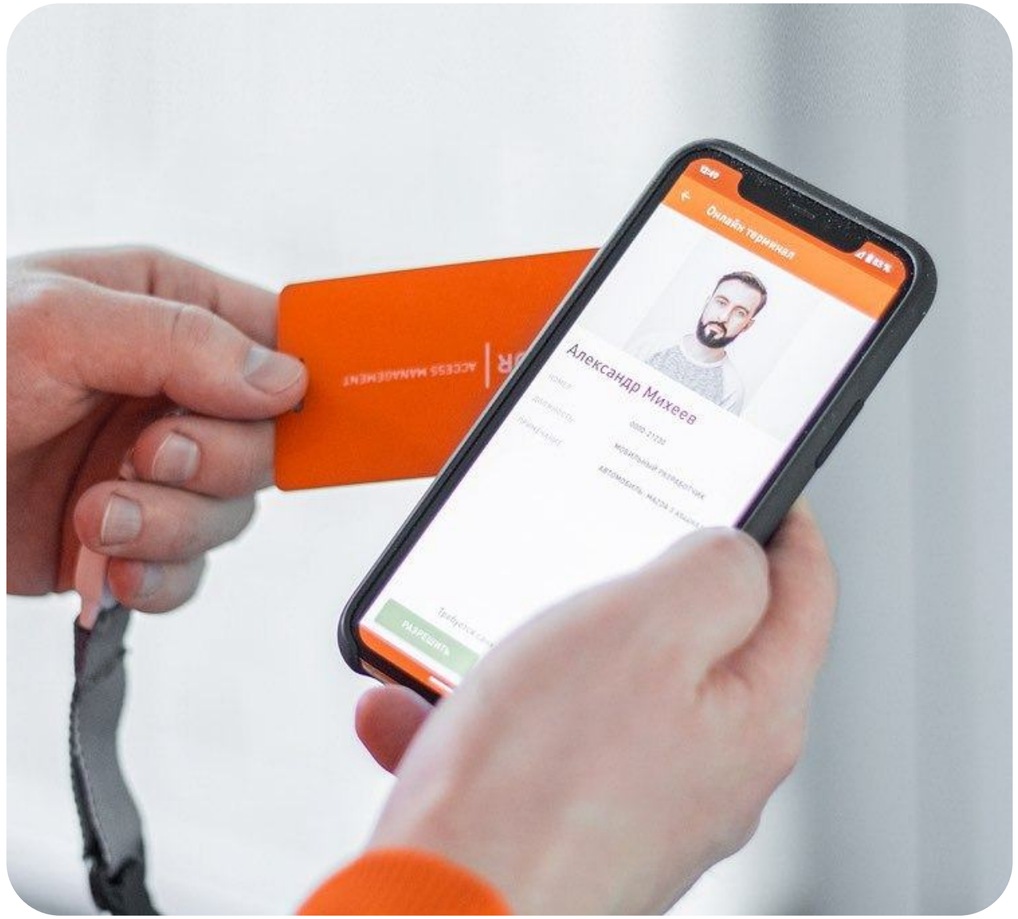
Event Response

- changing system parameters in response to events in it
- setting up alerts via SMS, e-mail, Telegram, Viber
- banning access at elevated temperatures



Payment System and Paid Access

- Automation of the calculation of meals in corporate canteens
- Non-cash payment for goods and services using the same access cards as for the passage



Mobile NFC-terminal

- Organization of mobile access points
- Registration of passes using a smartphone

ID Key Graphic Design

Creating templates for the graphic design of id key

Templates for the front and back of the card

Getting the necessary information:

- text fields
- staff photos
- arbitrary graphic images

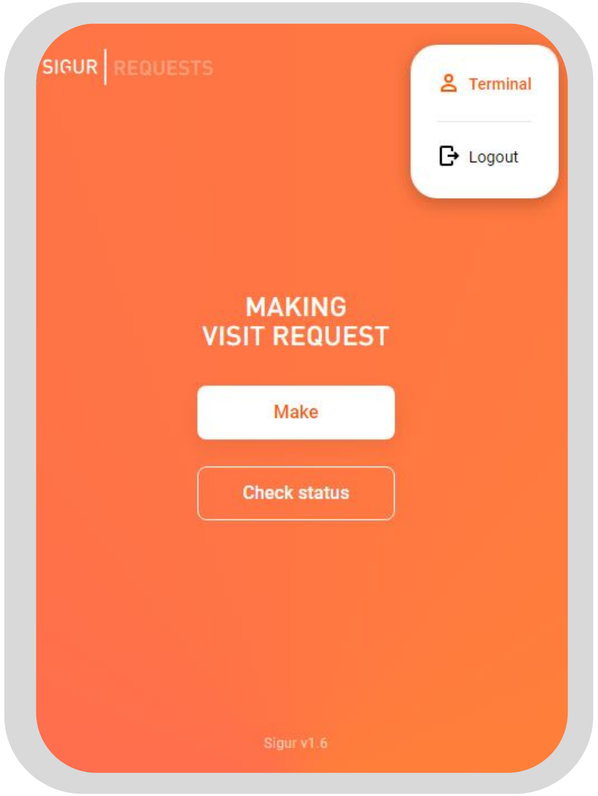
The number of templates in the system is unlimited

Extended Support of Guest ID Keys

- The organization of the APM "Bureau of passes"
- The history of the issuance and withdrawal of a pass
- Displaying a list of omissions with the ability to sort by different criteria
- Filtering based on card activity (the pass is deposited or issued)



Sigur Requiests



- Online application creating
- Generation of QR codes
- Online application tracking

Evacuation reports

Monitoring the location of employees by creating evacuation reports.
In case of evacuation, you can check who left the building and who stayed in it.



Dashboards

Grafana

Dashboards allow you to aggregate and visualize large amounts of data for a certain period or current indicators, which makes them a very useful tool for making quick and informed decisions based on data.



Applience

- Passes per period
- Unique passages per period
- Passes for the current day
- How many people are in the office and what is the total number of staff today
- Location Panel
- The number of uncoordinated requests for visits
- Audit of actions in the system
- Unauthorized access attempts during the period are displayed as a graph
- Alarm panel



Integration abilities with third party systems

Modern methods of interaction for the implementation of full-fledged integrations.
The REST API is a universal tool for integrating ACS into the ecosystem of an object.



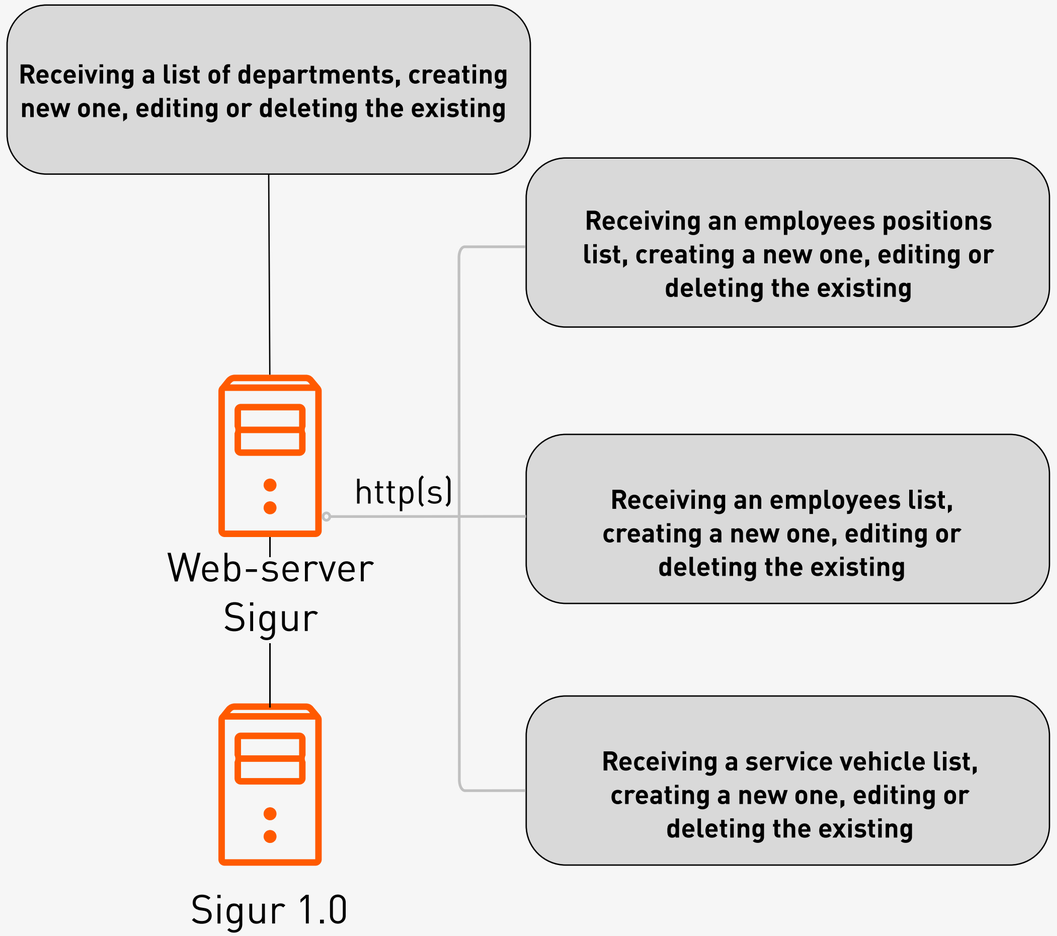


REST API

Sigur REST API functions

- REST interface allows to read and edit Sigur databases, creating new data objects, or deleting the existing.

- ACS staff may be controlled through the 3-rd party developer system.



Our partners































Principles of integration

01

Enrolling and deleting biometric templates directly from the Sigur software

02

Support for various types of local/server identification

03

Combination with other types of identification implementation of complex passageways

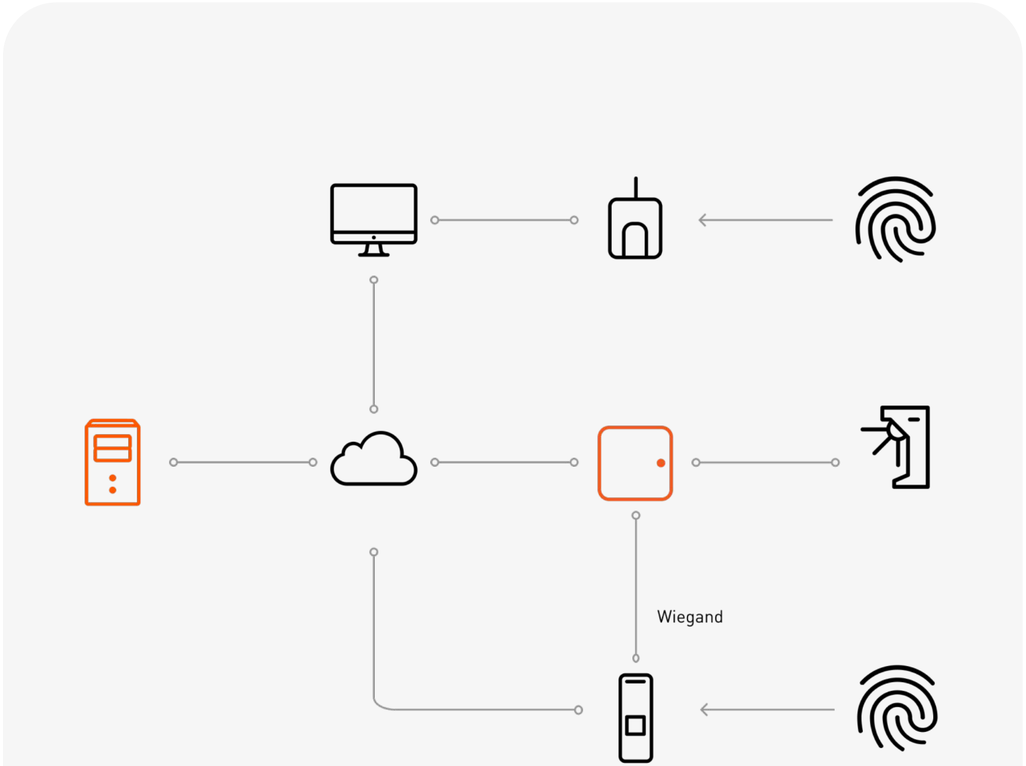
Fingerprints recognition

Integrated vendors:

Suprema

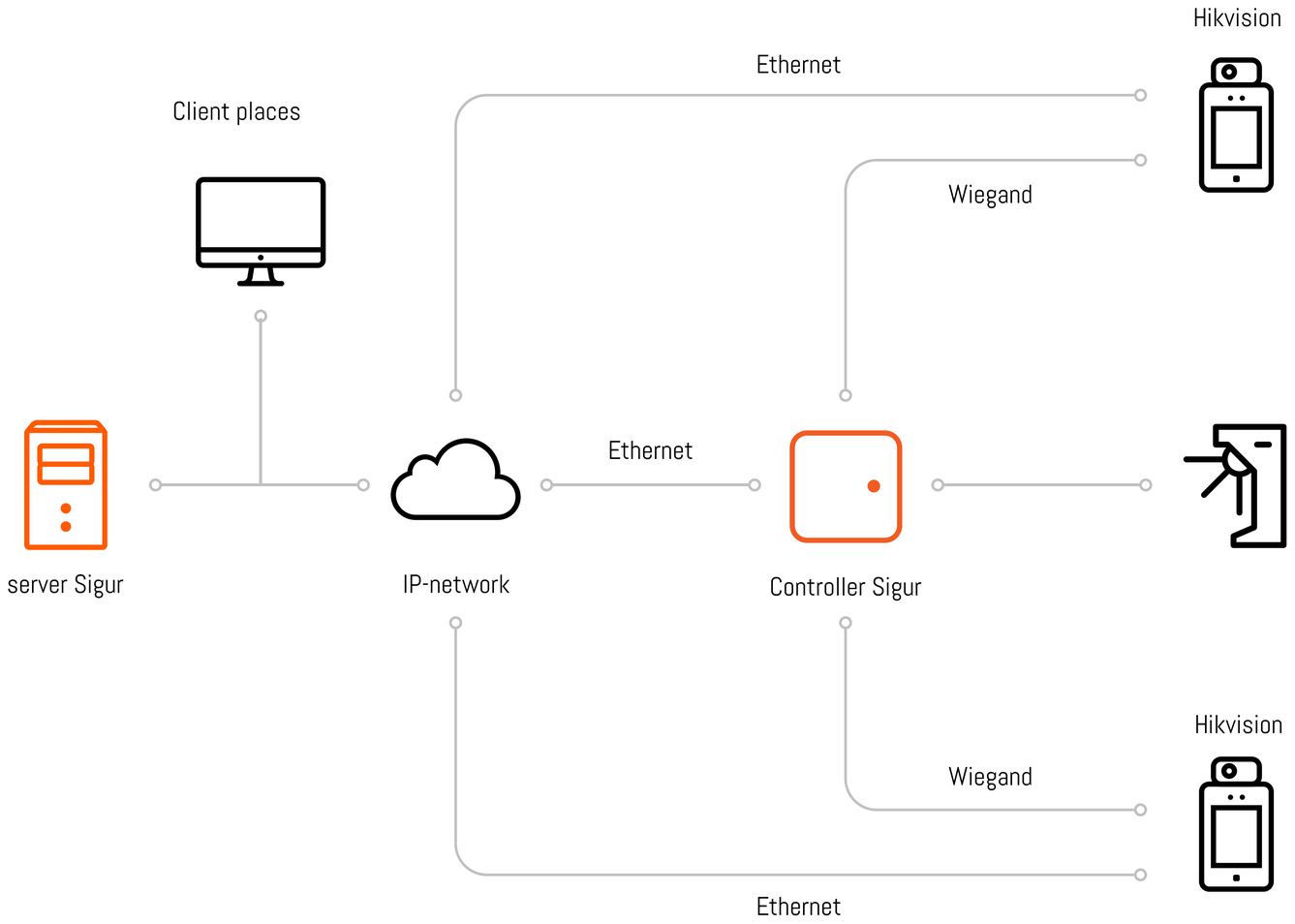
Biosmart

Anviz

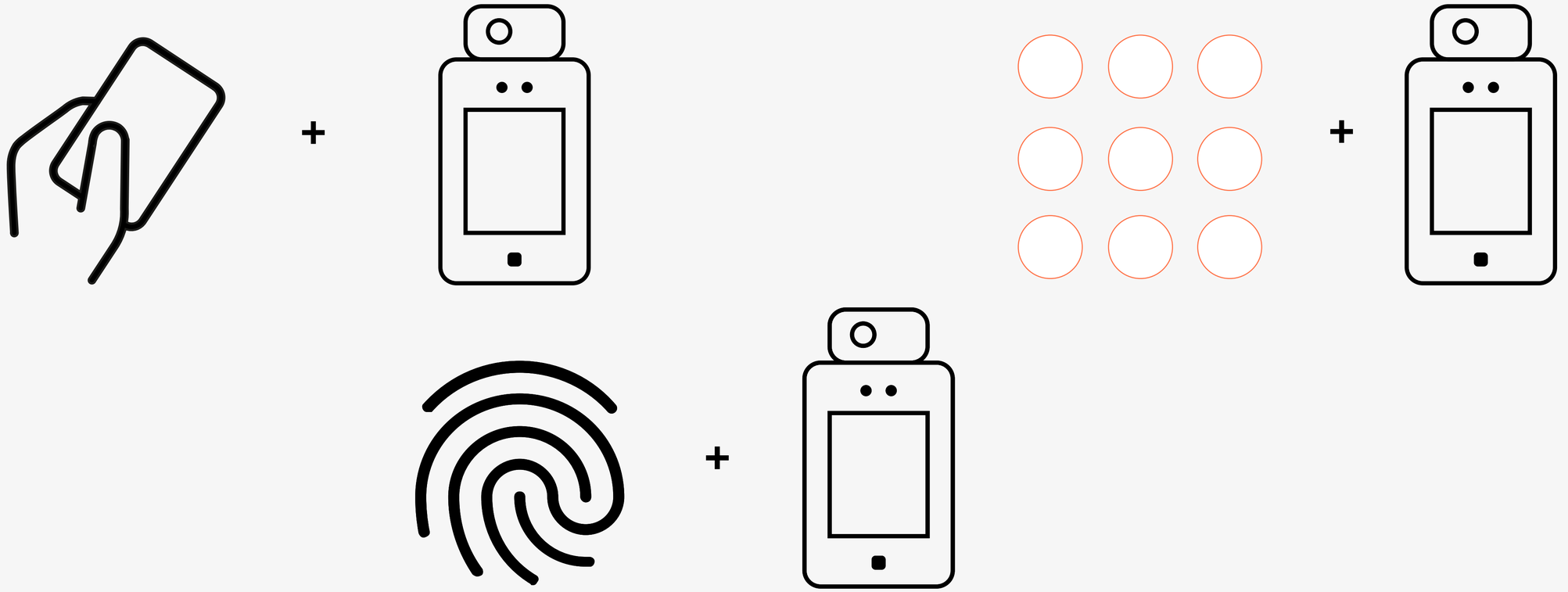


Sigur access management

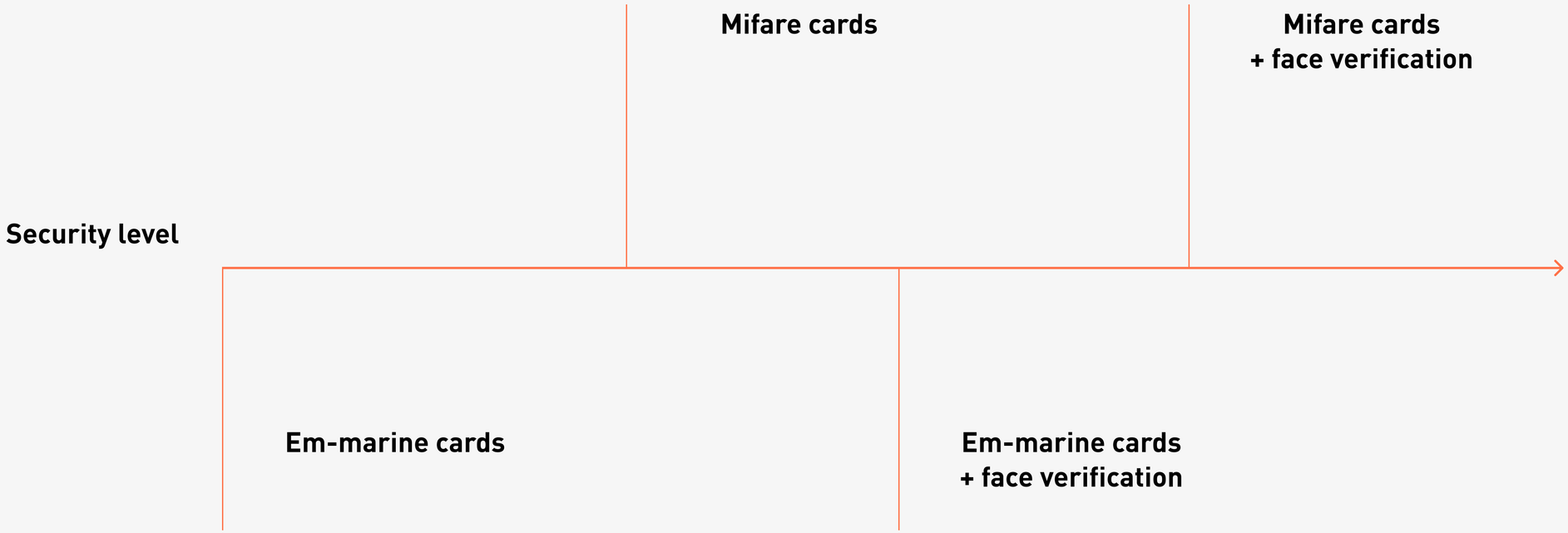
Integration with Hikvision Terminals



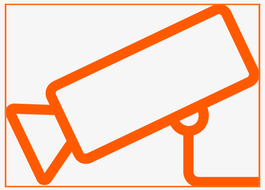
Primary feature



Sigur: cards security



Comprehensive security system



CCTV

Live-video streaming,
Returning to the event in video archive,
Vehicles plate number recognition



Sigur server

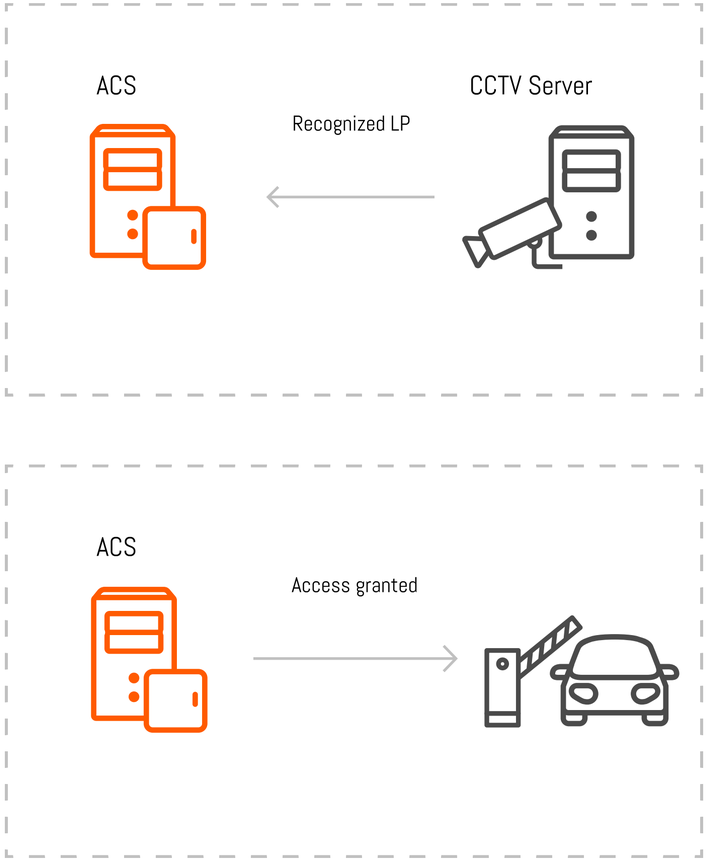


Security and fire alarms

Monitoring and zone control,
Access points unlock in case of emergency,
Keeping all Security and alarm system events

Interaction between CCTV and ACS in LPR

Number recognition on the CCTV server, transfer of recognized numbers to the ACS, processing by the ACS server and granting access to the car.



Integration with KMS KeyGuard

- Assigning key access rules from the Sigur software interface
- Logging of key collection and delivery events
- Automatic removal and registration of security zones when taking the appropriate keys
- Reports on recorded events
- Any identification methods

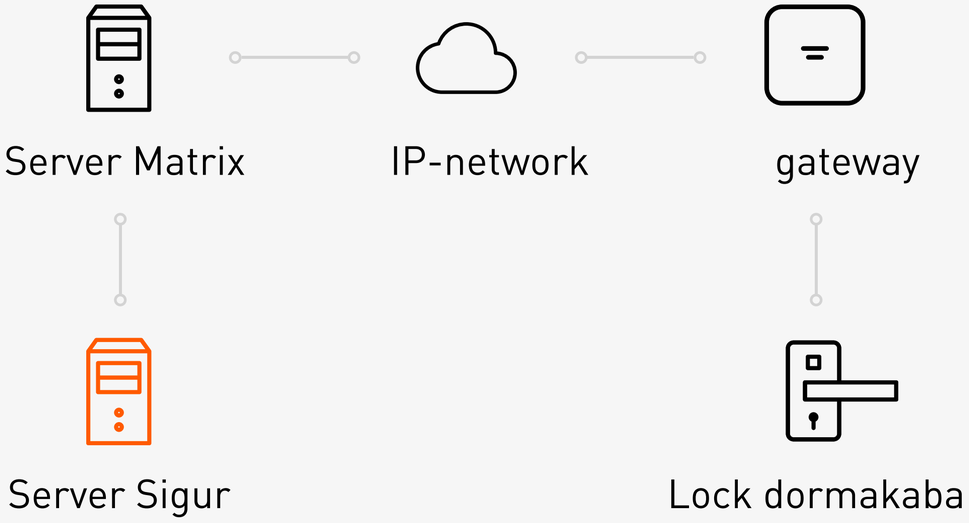


Integration with Intercoms BasIP

- The use of intercoms in passageway logic
- Administration from Sigur Software

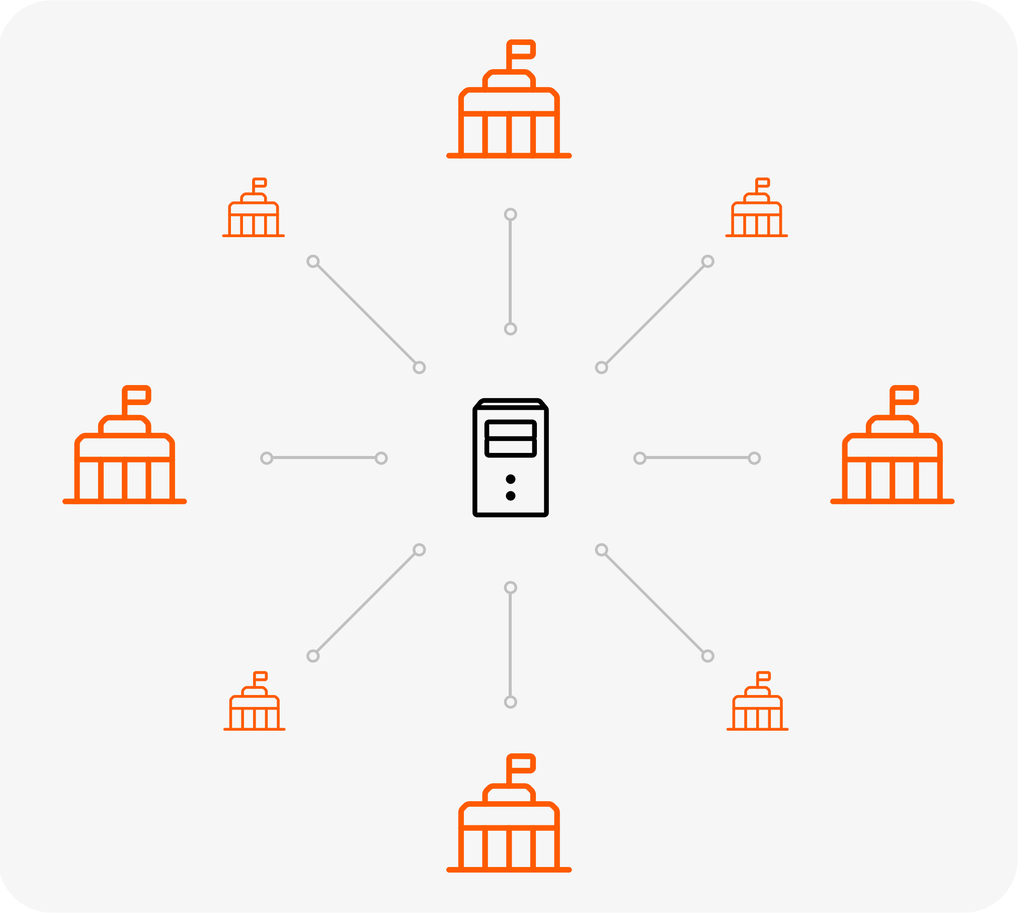


Integration with wireless locks Dormakaba





Support for geographically distributed facilities



Years of experience

















Sigur access management

SIGUR | ACCESS MANAGEMENT

07

Use Cases

Typical tasks commercial facilities

- Organization of access to the territory inside the building for residents, coworking users, fitness center
- Organization of visitor access, identification using QR
- Tasks of identification and access control using access cards and face recognition
- Coworking management using an external service with a custom application
- Using mobile identification
- Fitness is an independent organization with dedicated business applications



Typical tasks of manufacturing facilities

- The production has a number of distributed facilities
- Identification and access control tasks
- Tasks of access to especially dangerous workshops, transport infrastructure facilities, access to special premises, access through the gateway
- Organization of visitors, coordination of requests for visits in the security service
- Organization of working time accounting, automatic generation of reports
- Synchronization of employee data from the corporate system
- Organization of power calculation within the ACS system
- Operational monitoring and reactions to alarming events in the system
- Video recording of passageways and alarms
- Organization of staff evacuation



Typical tasks of educational facilities

- Organization of access to the territory of the educational institution at the entrance groups, blocking the access of an attacker
- Tasks of identification and access control using access cards and face recognition
- Organization of notification of parents about the student's entrance and exit from the institution
- Recording the events of the passage into the electronic diary system
- Classrooms should be equipped with identification points to monitor attendance
- Organization of staff evacuation



Quarantine logic for healthcare

A solution for livestock enterprises or for medical purposes where after visiting one workshop or place it is forbidden to visit another.



Access control to elevator





Benefits of partnership

- Solutions combining the best quality products
- Predictable outcomes and focus on long-term relation
- 95% new customers stay with us forever

SIGUR | ACCESS MANAGEMENT

Thank you for your attention!

Contact us:
sales@sigur.com
sigur.com