

An abstract graphic on the left side of the slide, consisting of a network of light blue lines connecting small dots. Some dots are larger and more prominent than others. The lines form a complex, web-like structure that extends across the left half of the image.

Building Integration Grootech



Buildings Automation System

Infrastructure Monitoring (BMS)

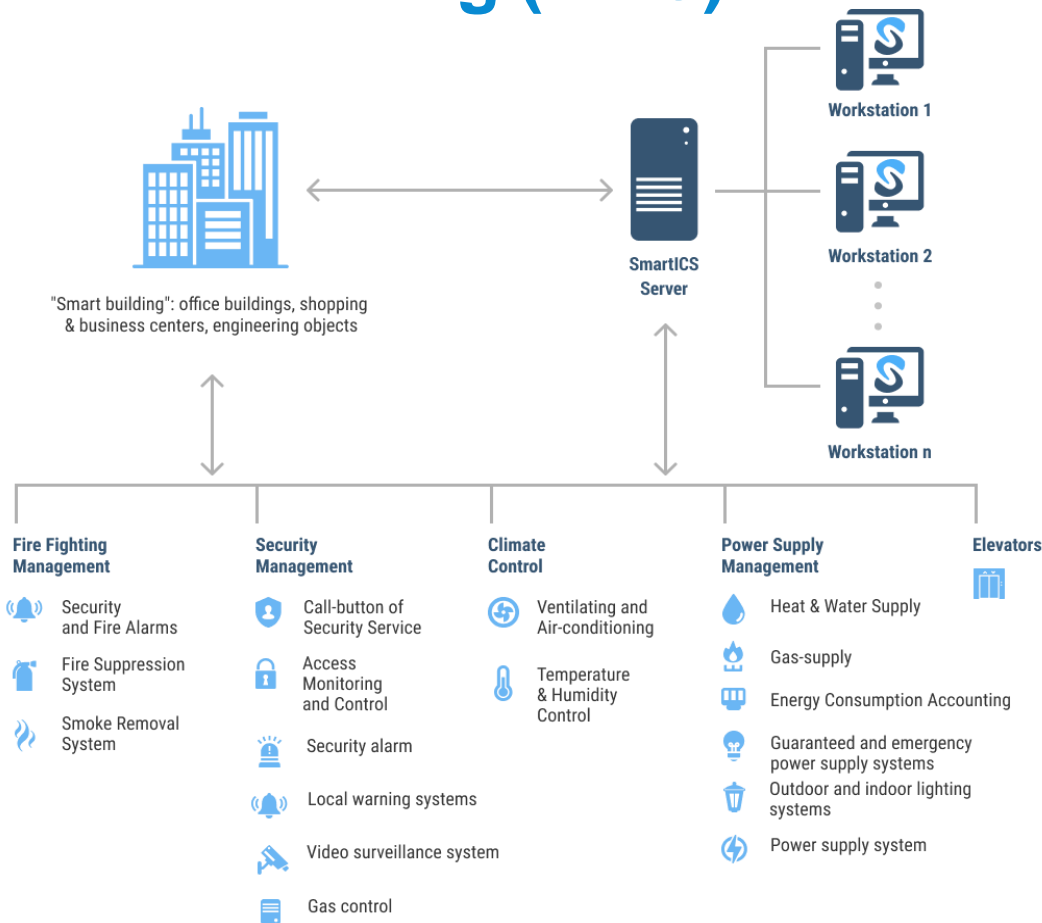
Data Center monitoring for Smart Building systems

- Fire alarm system
- Security and access control management
- Climate Control
- Electricity Distribution and Power Supply Management
- Elevators

10 times faster development in comparison to traditional platforms

70% cost decrease

Infrastructure Monitoring (BMS)



2

Lighting automation

Automation system for indoor lighting of the building

- Optimum Area
- 3 separate buildings
- DALI touch switches
- DALI lighting controllers
- LED lights with DALI interface support

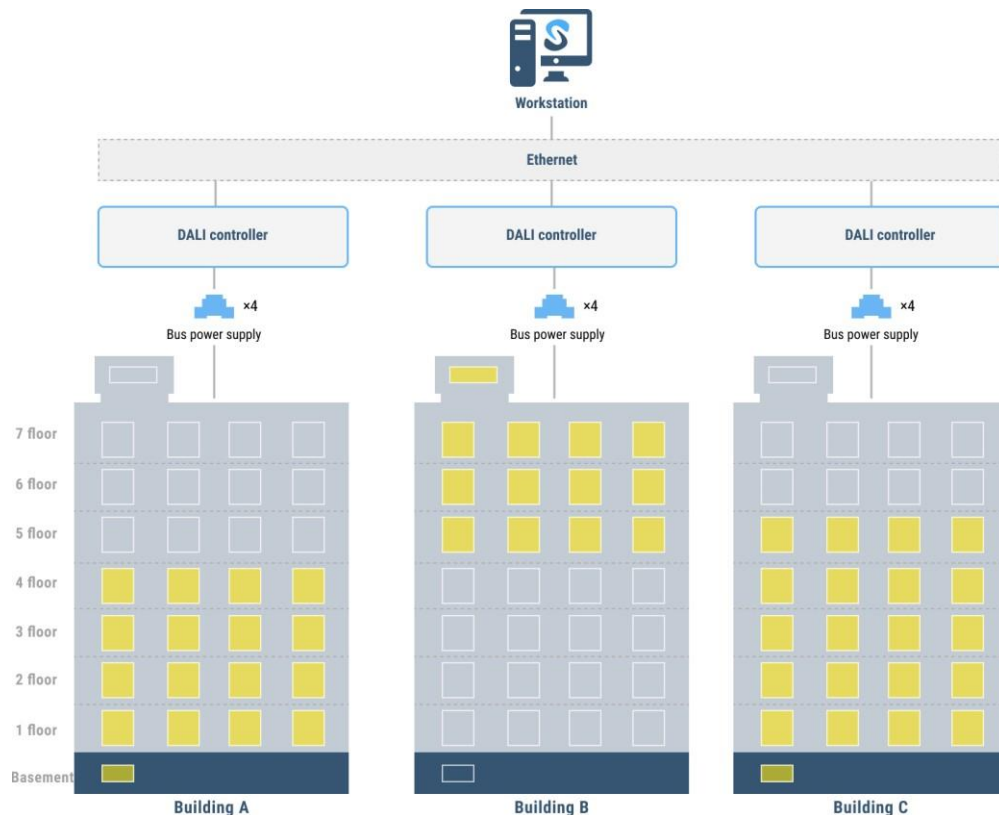
2 times faster project
development

30% maintenance
cost decrease



Lighting automation

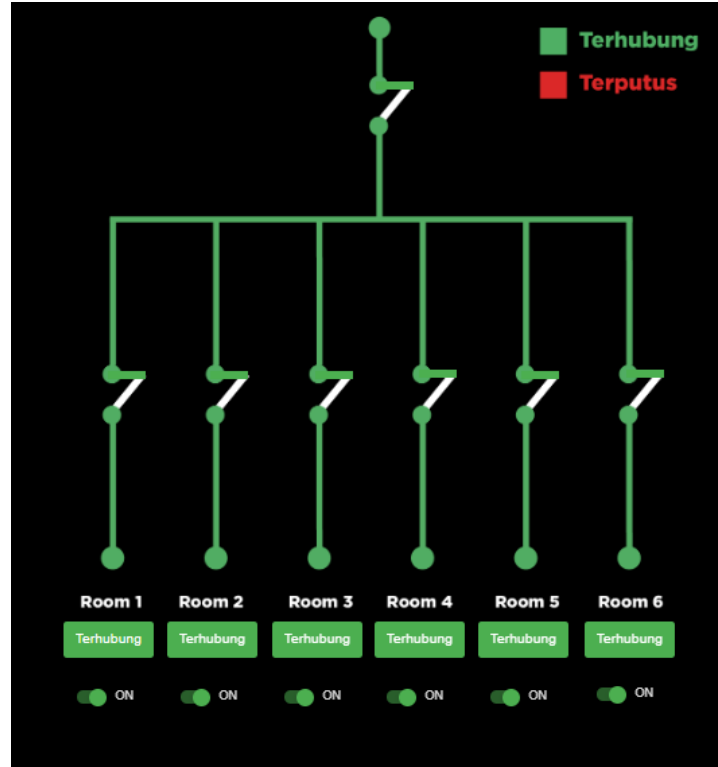
Automation system for indoor lighting of the building



- Automated control lamps and control of the entire lighting system from a single point
- Adjustment of seasonal and daily lighting modes to reduce energy cost
- Up-to-date information about the malfunction of lamps for timely maintenance and replacement of lighting lamps
- Increase the level of comfort for employees' work
- Alarm setting and alarm message management

Lighting automation

Automation system for indoor lighting of the building



- Automated control Lighting and control of the entire lighting system from a single point
- Turn off and turn on the lights
- Knowing which one is disconnected and connected

Building automation

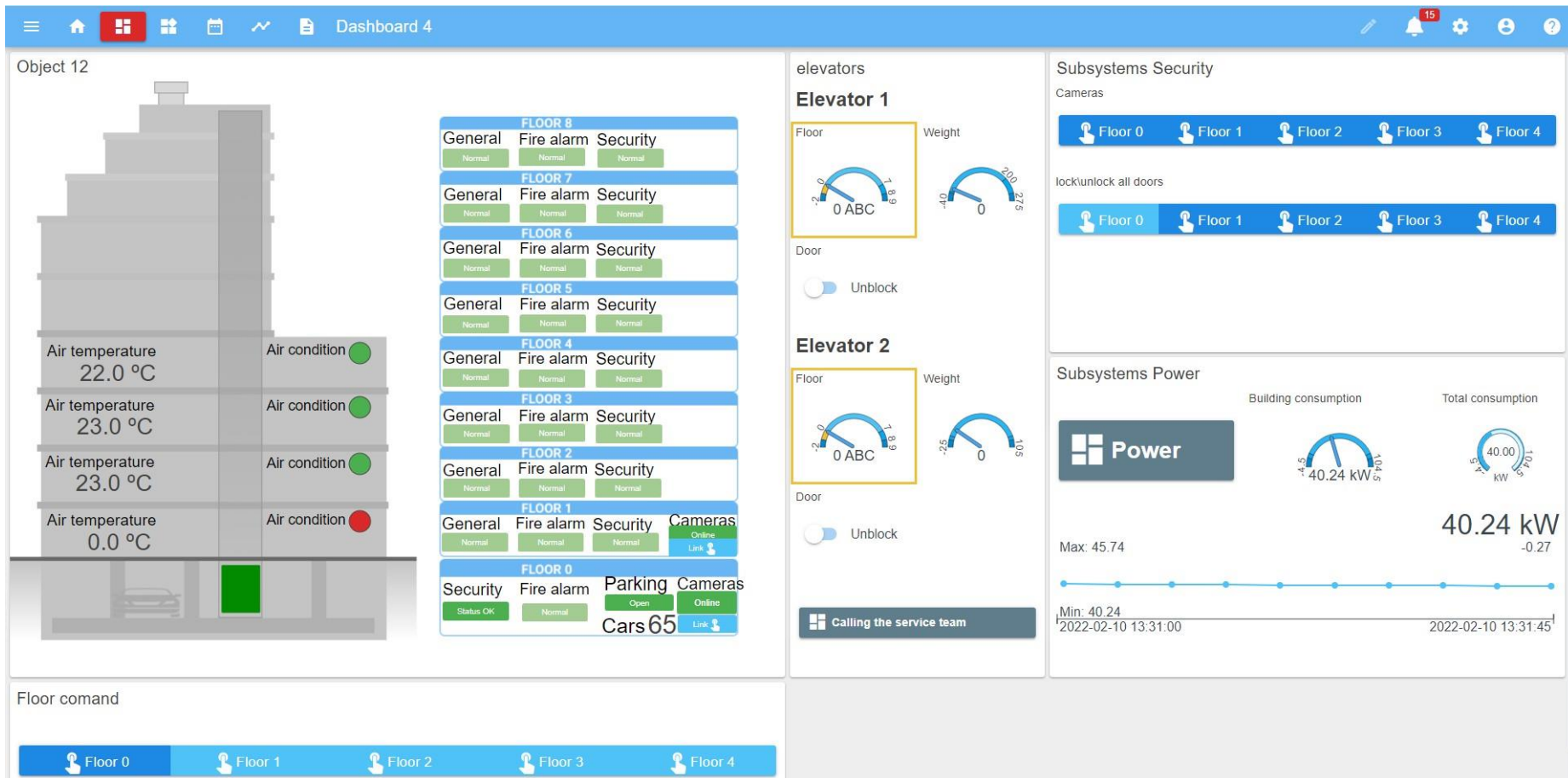
Status control and power supply monitoring

- Office area
- Needed to centralize few existing and new systems
- Parking and elevators added to scheme
- Fire alarm and Security (door lock)
- Power monitoring



3 times faster project development than competitive platforms

30% maintenance cost decrease



Power

Generator

Generator fuel level



Generator fuel level



Min: NaN

YYYY-MM-DD H:mm:ss YYYY-MM-DD H:mm:ss

Manual start

Status



Off



Off

Generator Current o...



Generator Current o...



UPS units Floor 1

Unit 1



Unit 2

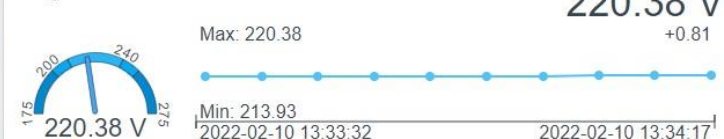


Unit 3

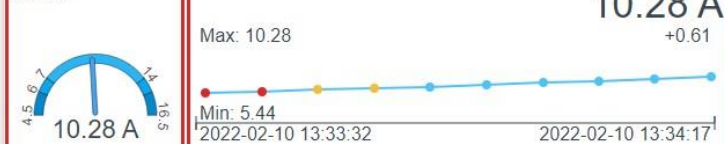


Floor 1

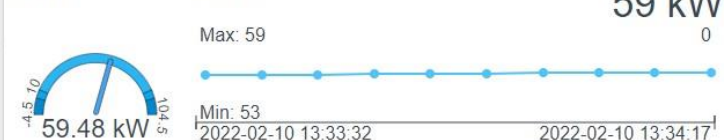
Voltage



Current



Sector A



Sector B



Electricity consumption

Lighting system

Heating system

Other

Cost of 1 kW

0.00 kW

0.00 kW

0.00 kW

0

Ventilation system

Water Heating

Current consumption cost per hour

0.00 kW

0.00 kW

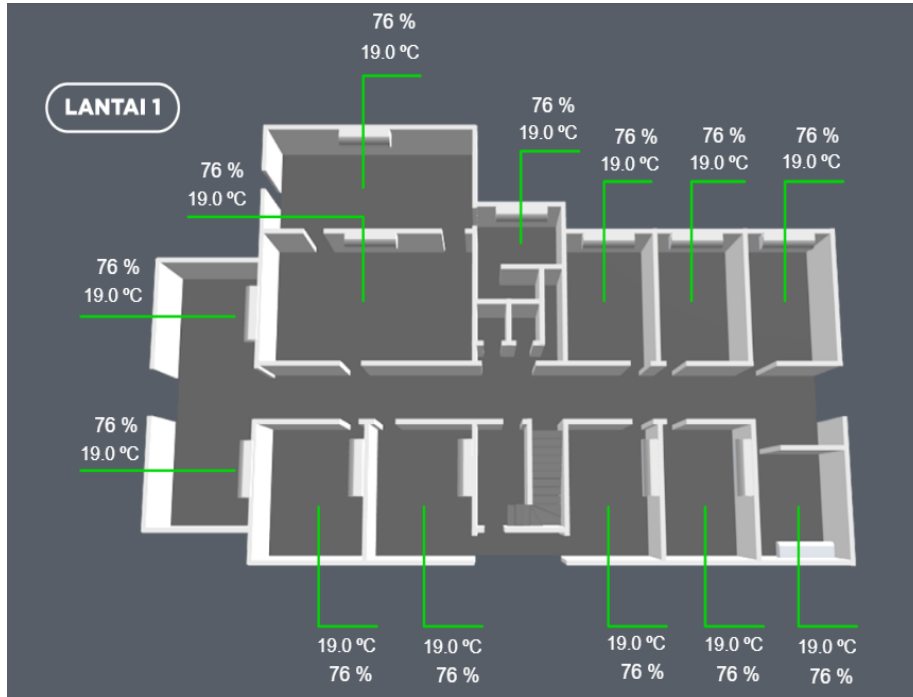
0.00 \$

Automation system for indoor Temperature and Humidity Monitoring

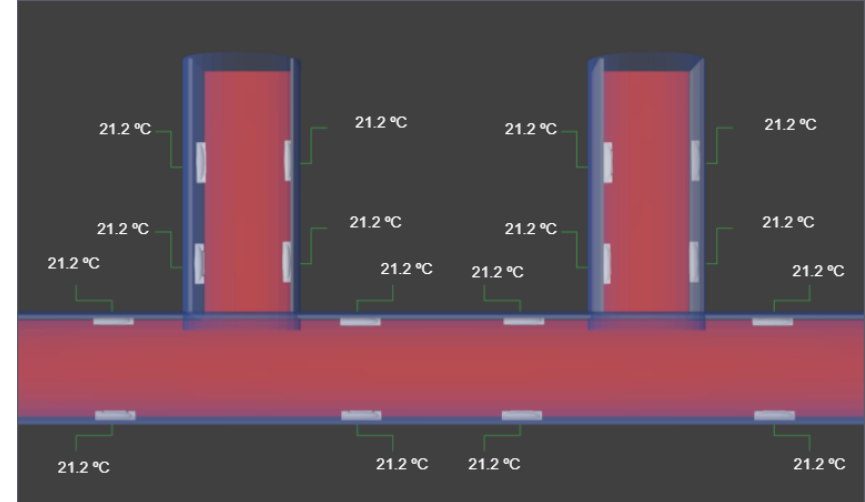


- PLC condition monitoring every floor
- Monitoring the condition of air conditioning and humidity sensor
- Notification when there is a disruption in connectivity

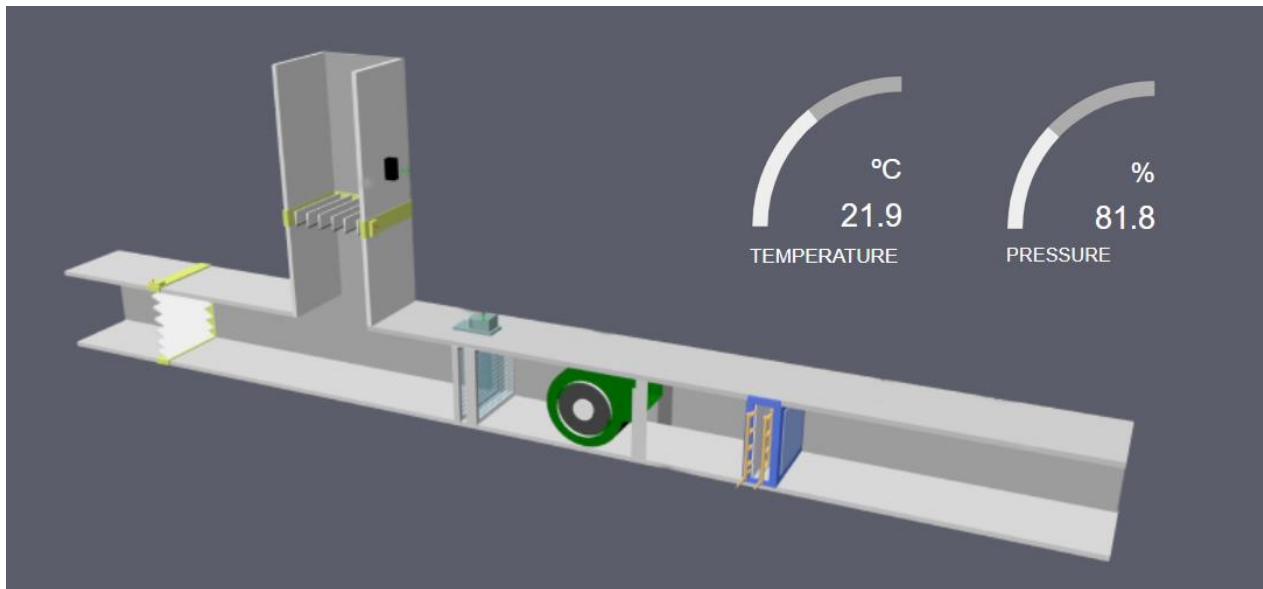
Automation system for indoor Temperature and Humidity Monitoring



➤ Displays the actual temperature and humidity of each floor and even every room



Automation system for Air Handling Unit



Displays the actual temperature and Pressure

Building automation

CENTER OF BASALT TECHNOLOGIES (Russia)

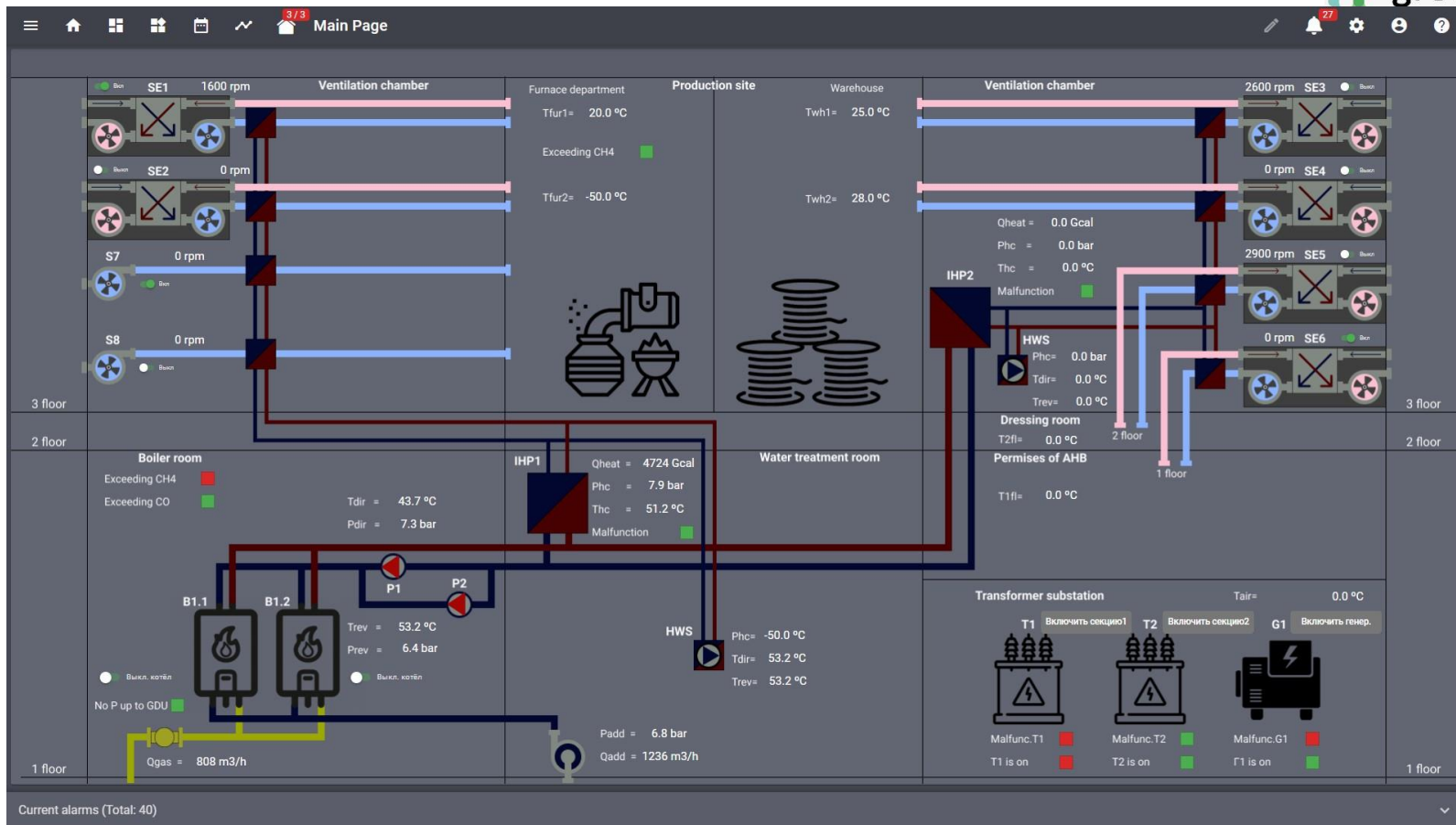
- Centralized Control Room
- Ventilation
- Boiler room
- Heating center
- Complete transformer substation

4 times faster project
development than
competitive platforms









35% maintenance
cost decrease



Building automation



Building automation

Ventilation system					
	<div>IS ON</div> <div>Включить Выключить</div>	Rotation frequency = 1600 rpm Frequency setpoint = 1600 rpm	Temperature in the control area = 20 °C Temperature setpoint = 20 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	
	<div>Stopped</div> <div>Включить Выключить</div>	Rotation frequency = 0 rpm Frequency setpoint = 0 rpm	Temperature in the control area = 20 °C Temperature setpoint = 20 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	
	<div>IS ON</div> <div>Включить Выключить</div>	Rotation frequency = 2600 rpm Frequency setpoint = 2600 rpm	Temperature in the control area = 25 °C Temperature setpoint = 25 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	
	<div>Stopped</div> <div>Включить Выключить</div>	Rotation frequency = 0 rpm Frequency setpoint = 0 rpm	Temperature in the control area = 25 °C Temperature setpoint = 25 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	
	<div>IS ON</div> <div>Включить Выключить</div>	Rotation frequency = 2900 rpm Frequency setpoint = 2900 rpm	Temperature in the control area = 28 °C Temperature setpoint = 28 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	
	<div>Stopped</div> <div>Включить Выключить</div>	Rotation frequency = 0 rpm Frequency setpoint = 0 rpm	Temperature in the control area = 28 °C Temperature setpoint = 28 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	
	<div>Stopped</div> <div>Включить Выключить</div>	Rotation frequency = 0 rpm Frequency setpoint = 0 rpm	Temperature in the control area = -50 °C Temperature setpoint = -50 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	
	<div>Stopped</div> <div>Включить Выключить</div>	Rotation frequency = 0 rpm Frequency setpoint = 0 rpm	Temperature in the control area = -50 °C Temperature setpoint = -50 °C	Temperature of the heat carrier direct = 60 °C Temperature of the heat carrier reverse = 56 °C	

Building automation



