

# Hotel Automation

> Made simple

# Hotel management difficulties

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Managing and Monitoring a hotel becomes more difficult every year

- Most of the times a 24h Reception desk is imperative
- Difficult to monitor hotel and room access other than keys or card
- No agile way to receive alerts and notifications efficiently
- Too many platform entry points to manage your facilities
- Time Consuming Manual Management And Reporting
- No way to receive alerts and notifications efficiently
- Reduced control of the entire business





# Means of Management

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- ✓ Reception Desk for most times of days
- ✓ PMS Software or Spreadsheets for managing Reservations
- ✓ Notification of Customers via Phone or Email Writing
- ✓ Access to rooms is given with key or card in person
- ✓ The building's climate, lights & devices are controlled manually
- ✓ Alerts from staff or customers are made through phone
- ✓ Room services towards customer are given from reception
- ✓ Room cleaning and maintenance is manually controlled

# Market Statistics

Austria is one of the leading tourist destinations in Europe. The country's influential history, rich culture, and fascinating landscape attracted over 30 million international tourists prior to the coronavirus (COVID-19) pandemic, making it the seventh most popular European country based on inbound tourist arrivals.

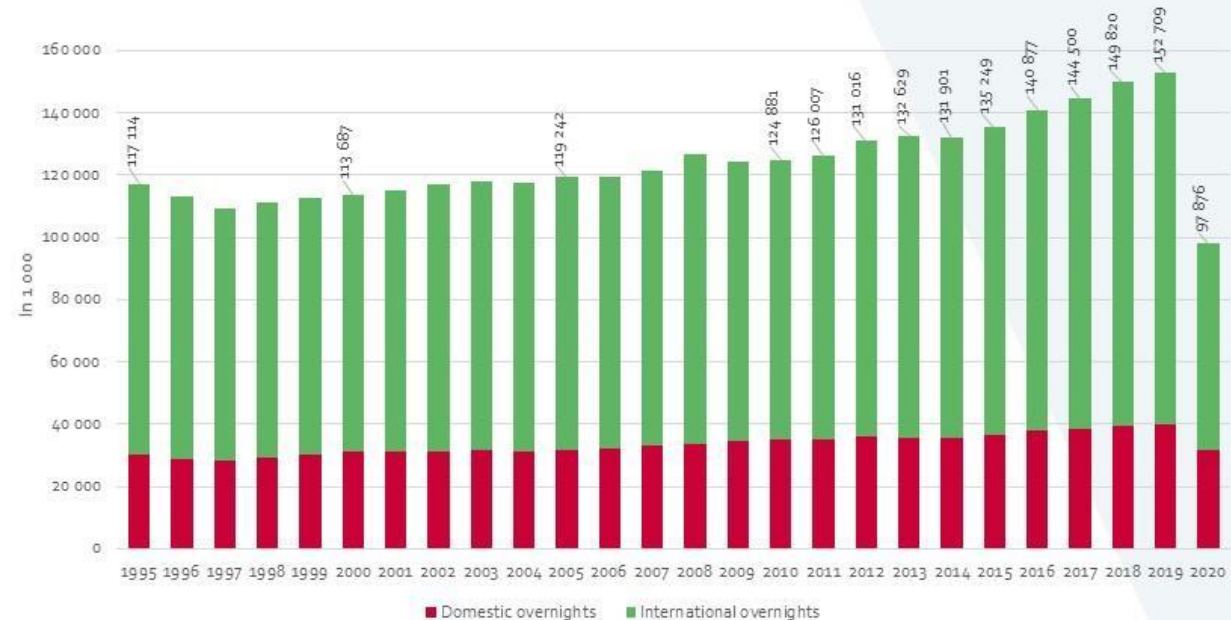
The number of travel accommodation establishments in Austria has risen steadily over the last ten years, peaking at 22.4 thousand in 2020

Source: <https://www.statista.com>

Federal Ministry  
Republic of Austria  
Agriculture, Regions  
and Tourism

bmlrt.gv.at

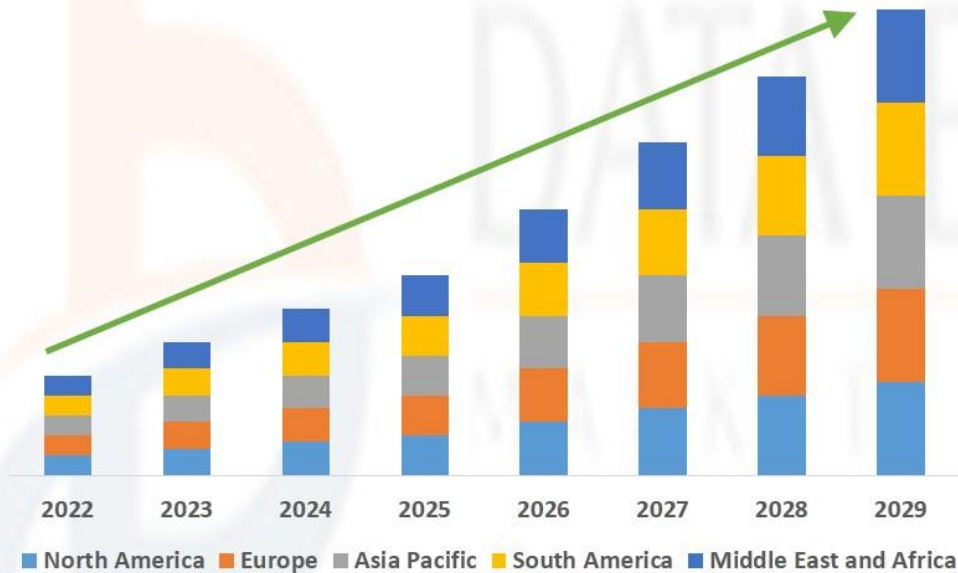
## Overnights in Austria 1995 – 2020\*



Source: Statistics Austria; \*Lockdowns in spring and autumn/winter 2020

# Market Statistics

Global Smart Hospitality Market is Expected to Account for USD 117.26 Billion by 2029



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Source: Data Bridge Market Research Market Analysis Study 2022

Global Smart Hospitality Market,  
By Regions, 2022 to 2029

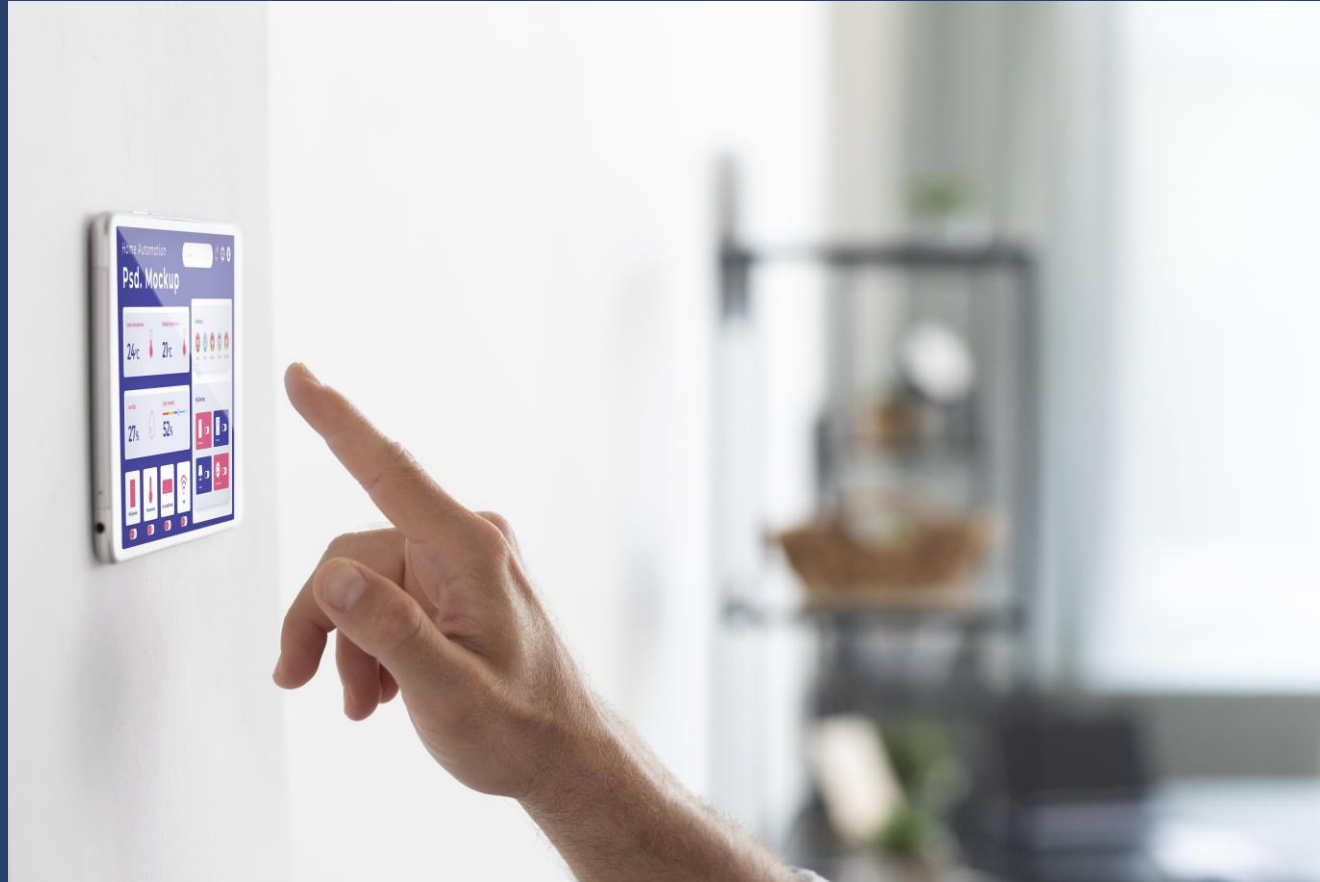


DATA BRIDGE MARKET  
RESEARCH



Data Bridge Market Research analyses that the smart hospitality market is expected to grow at a CAGR of 26.3% during the forecast period of 2022 to 2029, at a USD 18.11 billion in 2021 and is further estimated to reach USD 117.26 billion by 2029.





Automate your  
Property & Hotel  
Environment to a  
Smart Level

Anytime,  
Anywhere  
on Any Device

An all in one Solution For  
Hotel Automation and Monitoring

# About us

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Keyonic GMBH is a software development and automation integration company based in Vienna, Austria.

Our company was founded in 2021 by renowned executives in the field of information technology and building automation with many years of experience.



- **Executives with 18 years of presence and innovation**
- **Certified Engineers and trained technicians**
- **Collaboration with the major brands on Building, Hotel & Home Automation**
- **Prototype integrated in 3 hotel & BnB projects**

# What we offer

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## 01 All In one

A single platform for property management PMS, smart access, infrastructure control for rental properties

## 02 Complete Management

Guest Access Control, Control Building Lighting, Blinds, Heating, Air quality, Power Consumption

## 03 Reporting & Alerts

Real time reports and alerts. Notifications directly on the mobile phone

## 04 Access Control

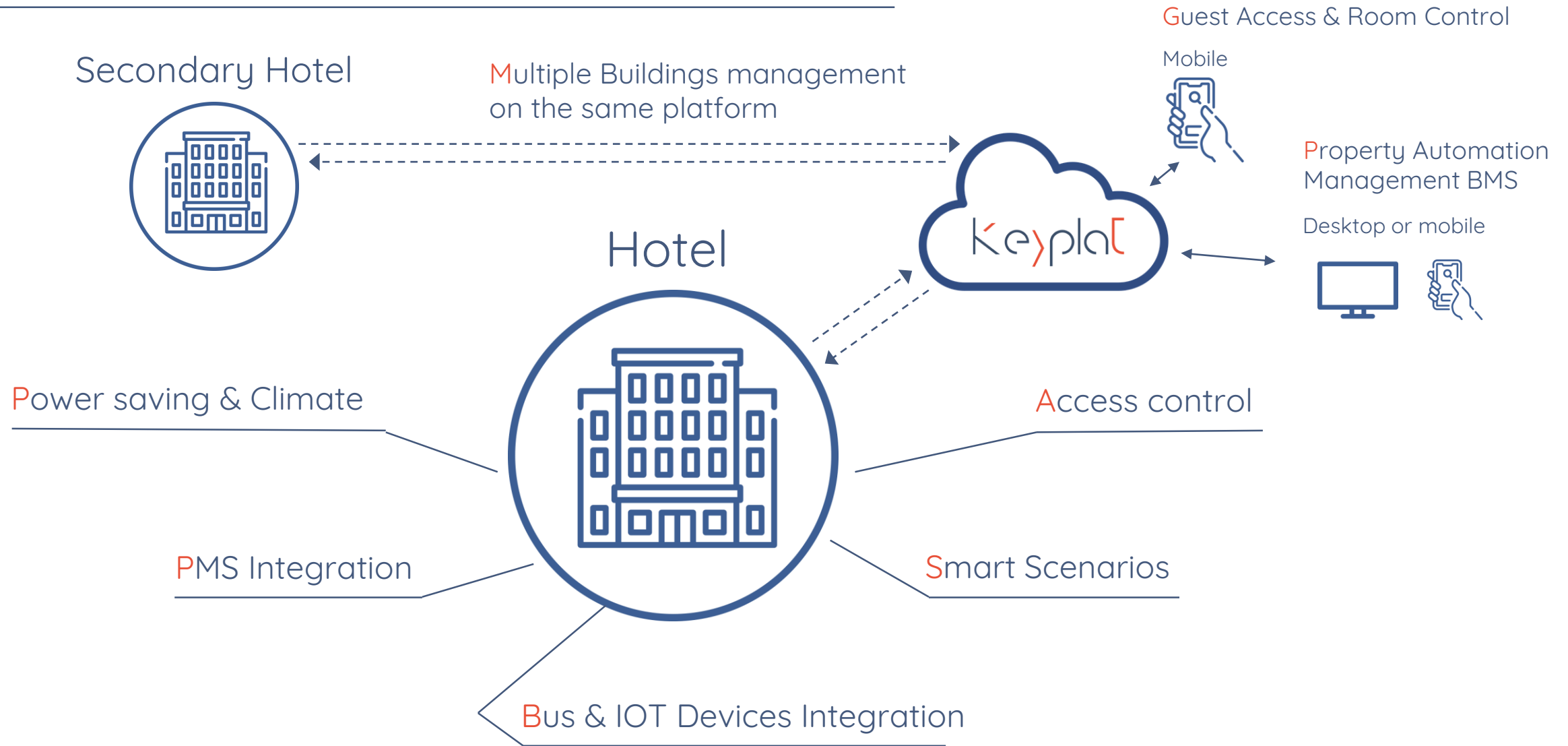
Time and user based access control. Auto password generation for each Reservation. Access reporting on the mobile phone

## 05 Energy Saving

Real time Power monitoring and Smart automated scenarios to facilitate devices for optimal performance with less energy costs.



# Platform and Hardware architecture



# Features

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- Smart guest access with smart locks
- Access Control based on reservation date and time
- Guest Room Control (access, lights, climate, shutters)
- Hotel Climate control (heat/cool, VRV, Fan coils, Spit Units, Underfloor Heating)
- KNX & Modbus Integration
- Hot Water management
- Fire Alarm System Integration
- Swimming Pool maintenance & control
- Smart Watering Gardens & Plants using astronomical clock and measurements such as humidity, temperature, PH etc.



# Features

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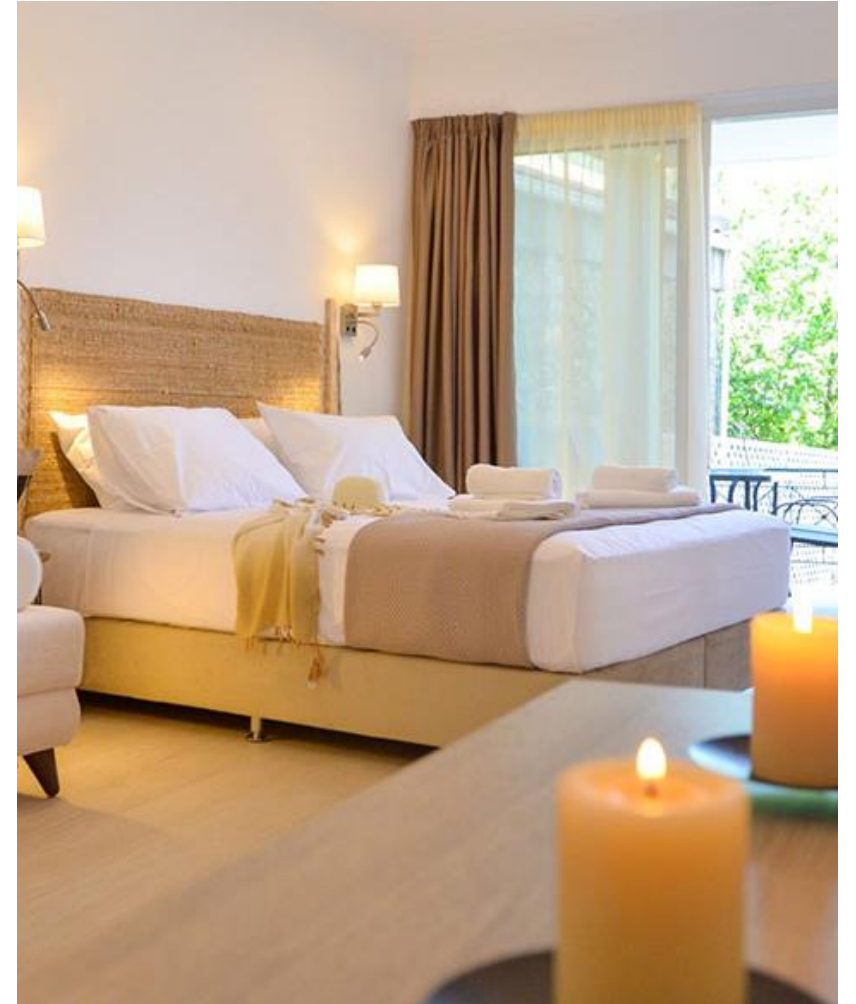
- Energy Consumption & Savings (Electrical, Gas, Fuel, Water (hot & cold))
- Notifications & Alerts
- Gas Leak & Fault detection on crucial systems
- Smart Scenarios
- Cleaning service status
- Guest Recommendations & Info on Mobile
- Guest Chat



# Solution Benefits

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- Comfort
- Energy monitoring
- Energy savings
- Building Device Management System
- Remote Control (air conditioning, lighting, etc) via mobile app
- Scene activation and configuration (welcome home, goodbye, relax, etc)
- Real time notifications on your mobile device (gas, flood, smoke, etc)
- Receive hotel announcements on touch panels (welcome, offers, etc)
- Control of room elements to enhance well-being and comfort (adjust temperature, lighting, moods, etc)
- Access the room via smartphone (access control)
- Operate do not disturb (DND) and make up the room (MUR) from the control panel or mobile device



# Devices Support

The platform will integrate with multiple devices in the market as well as different communication protocols.



# Where we stand out

## Platform **Key** Features

- Seamless guest services regarding reservation, access control, info etc.
- Manage and monitor multiple buildings from a single platform
- Building Management System for control of Lights, Climate, Blinds, Dimmers, Consumptions, Energy Saving, Swimming Pool, Hot Water etc.
- Keyonic API provides easily integration to external software Cross platform support  
Mobile, Tablet and Web
- Support of KNX and Modbus Protocols
- Smart Energy Management to reduce energy costs



# Competitors

Features	Keyonic	Operto	SALTO Systems	ZAPLOX	Lynx	Aeroguest
Smart Guest Access Control	✓	✓	✓	✓	✓	✓
<b>Bus Technologies integration</b>	✓	✗	✗	✗	✗	✗
PMS Integrations	✓	✓	✓	✓	✓	✓
IOT Locks Integration	✓	✓	✓	✓	✓	✓
Climate Control	✓	✓	✗	✗	✓	✗
Guest Room Control	✓	✓	✗	✓	✗	✗
Notifications & Reporting	✓	✓	✓	✓	✓	✓
<b>Handle Multiple Buildings on BMS</b>	✓	✗	✗	✗	✗	✗
Mobile Application	✓	✓	✓	✓	✓	✓
Cloud Based service	✓	✓	✓	✓	✓	✓
Cleaning service status	✓	✓	✗	✓	✓	✓
<b>Smart Energy Management Savings</b>	✓	✗	✗	✗	✗	✗
<b>Building Management System (BMS)</b>	✓	✗	✗	✗	✗	✗
Guest Chat	✓	✓	✗	✓	✓	✗
Smart Scenarios	✓	✓	✗	✗	✓	✗
Guest Recommendations & Info on Mobile	✓	✓	✗	✗	✓	✗
Years of Experience	**	****	****	***	***	***

# Use Case

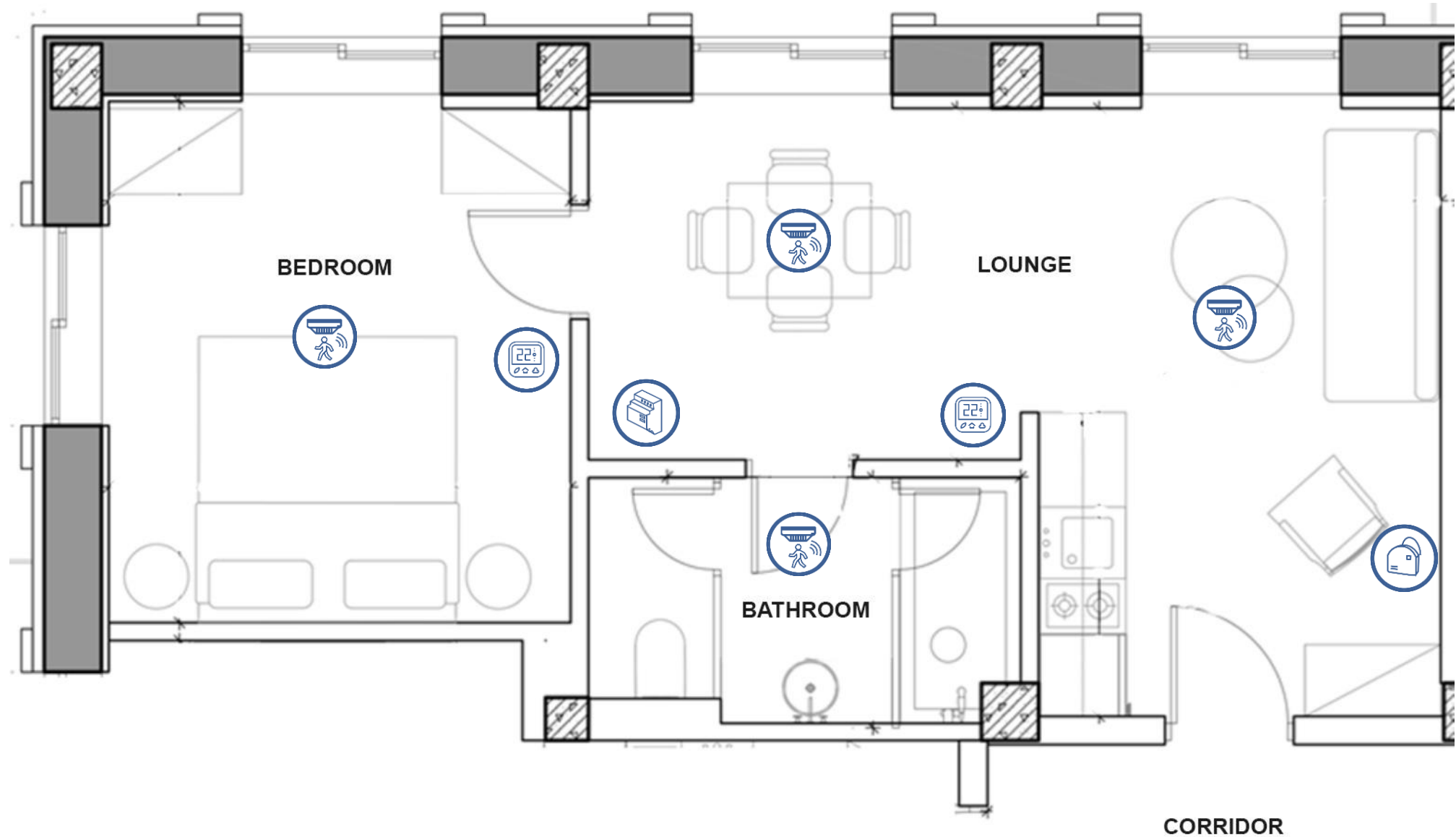
Example  
Hotel  
Apartment



# Power saving & Climate

## Legend:

-  Presence sensor
-  Fan Coil thermostat
-  Actuator Relay
-  Welcome Light Scenario



# Power saving & Climate

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Presence sensor

The Presence sensor detects human presence inside each room in order to enable power saving mode when people leave the room



Fan Coil thermostat

The Thermostat calibration panel that is inside the room. The visitor can turn on or off the climate and switch to Cooling or Heating at will



Actuator Relay

The actuator relay is responsible for turning on or off the devices for the power saving mode










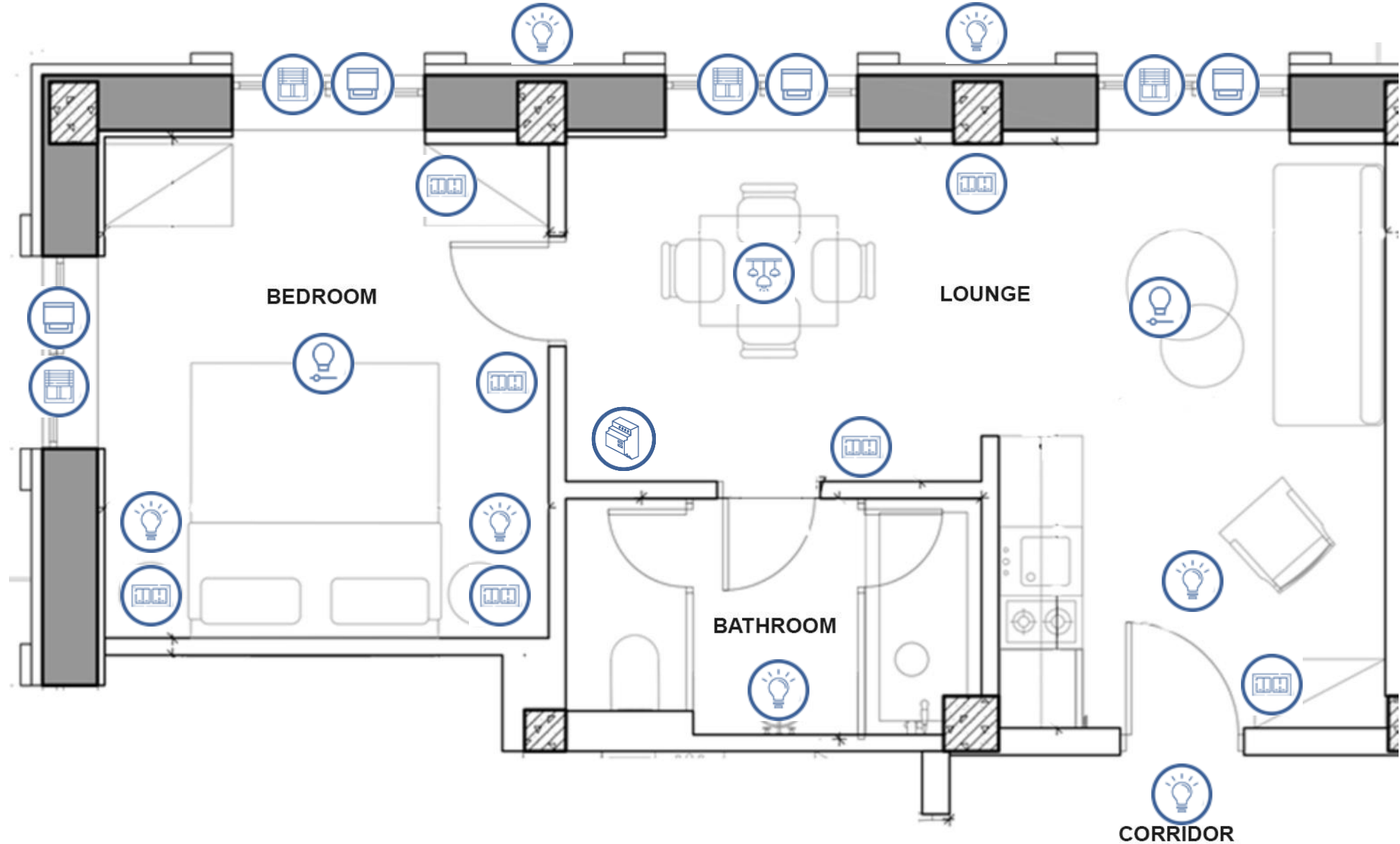
Welcome Light Scenario

The welcome light scenario switch is responsible for turning on the lights for the 'Welcome' scenario. The 'Welcome' Scenario, turns on some lights when the visitor enters the room

# Lighting, Shutter and Blinds control

## Legend:

-  Actuator Relay
-  Lighting Scenario
-  Switch
-  Shutter
-  Blinds
-  Lights On/Off
-  Dimmable Lights



# Lighting, Shutter and Blinds control

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## Smart Switch

Integrated smart switches such as Touch panels, Push-buttons and electrical accessories, facilitate the use of smart devices



## Shutter & Blinds

Blinds and Shutters are controlled automatically and remotely from the system



## Lighting control

Lighting is operated through smart switches or through smart applications.

It Features:

- Scenes/Moods
- Dimming
- RGB/RGBW control
- DALI lighting control



## Light Scenarios

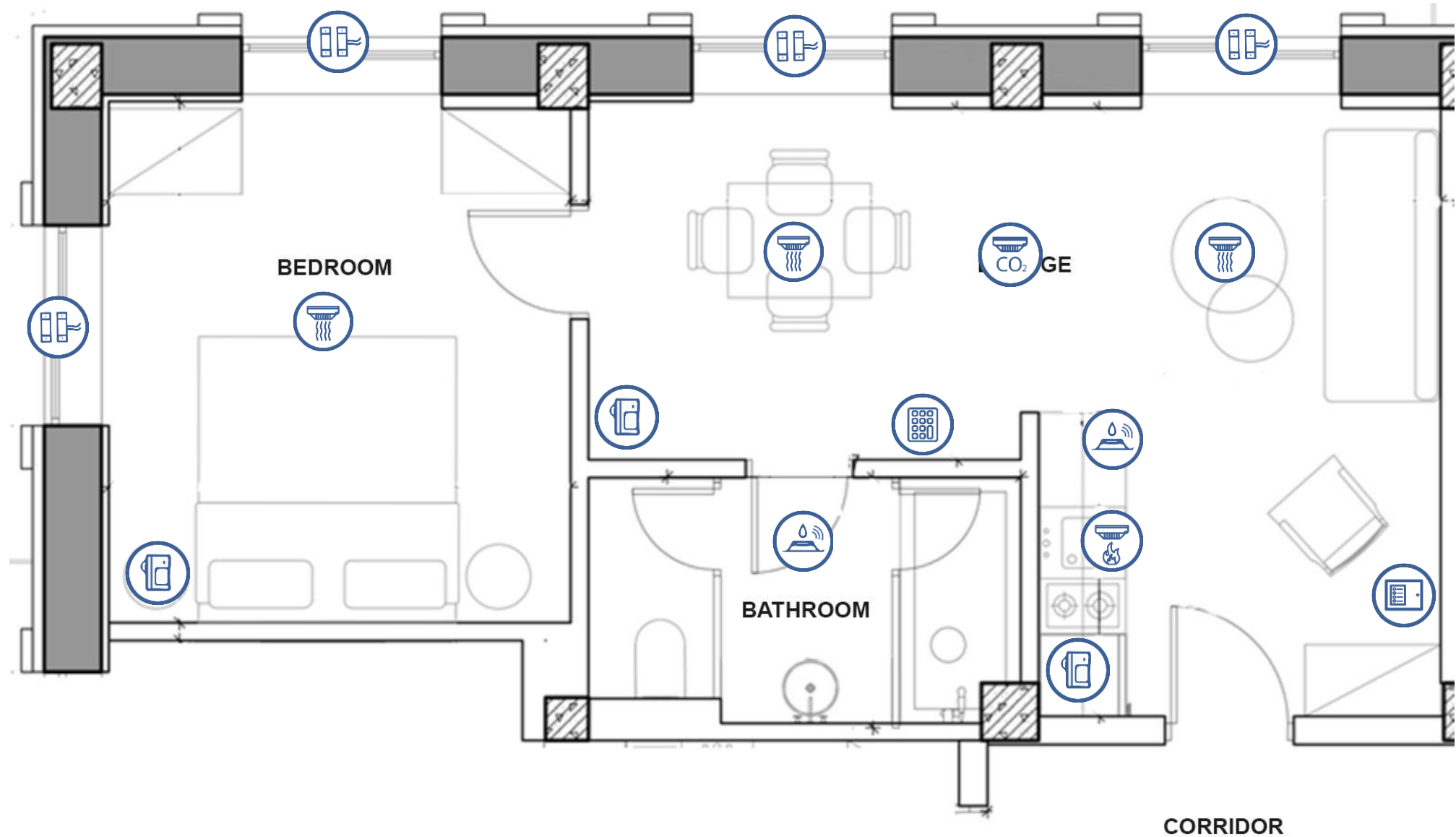
Light scenarios can also be created and controlled from the system



# Security system

## Legend:

-  Security Trap
-  Security Radar
-  Fire Detector
-  Smoke Detector
-  Water Sensor
-  Security Keypad
-  Security & Fire Control Panel
-  Air Quality Sensor



# Security system

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Security Trap

The security traps triggers the alarm when someone breaches the room while the Security Alarm is activated



Security Radar

The security radar triggers the alarm when motion inside room is detected while the Security Alarm is activated



Fire Detector

The fire detector triggers the fire alarm when fire flames are detected



Smoke Detector

The smoke detector triggers the fire alarm when smoke is detected inside the room



Water Sensor

The water detector triggers the flood alarm when the water on the room floor exceeds a certain level



Security Keypad

The security keypad is used to manage the security inside the room.



Security & Fire Control Panel

The security and fire control panel contains all the requires systems for the fire and security systems to function



Air Quality Sensor

The air quality sensor detects the quality of the air inside the room, and raises and alarm if the quality of the air is poor

# Access control – CCTV – Door Phone – Multimedia

## Legend:



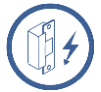
Monitor Door Phone



IP Camera Dom 360



Access Control Keypad



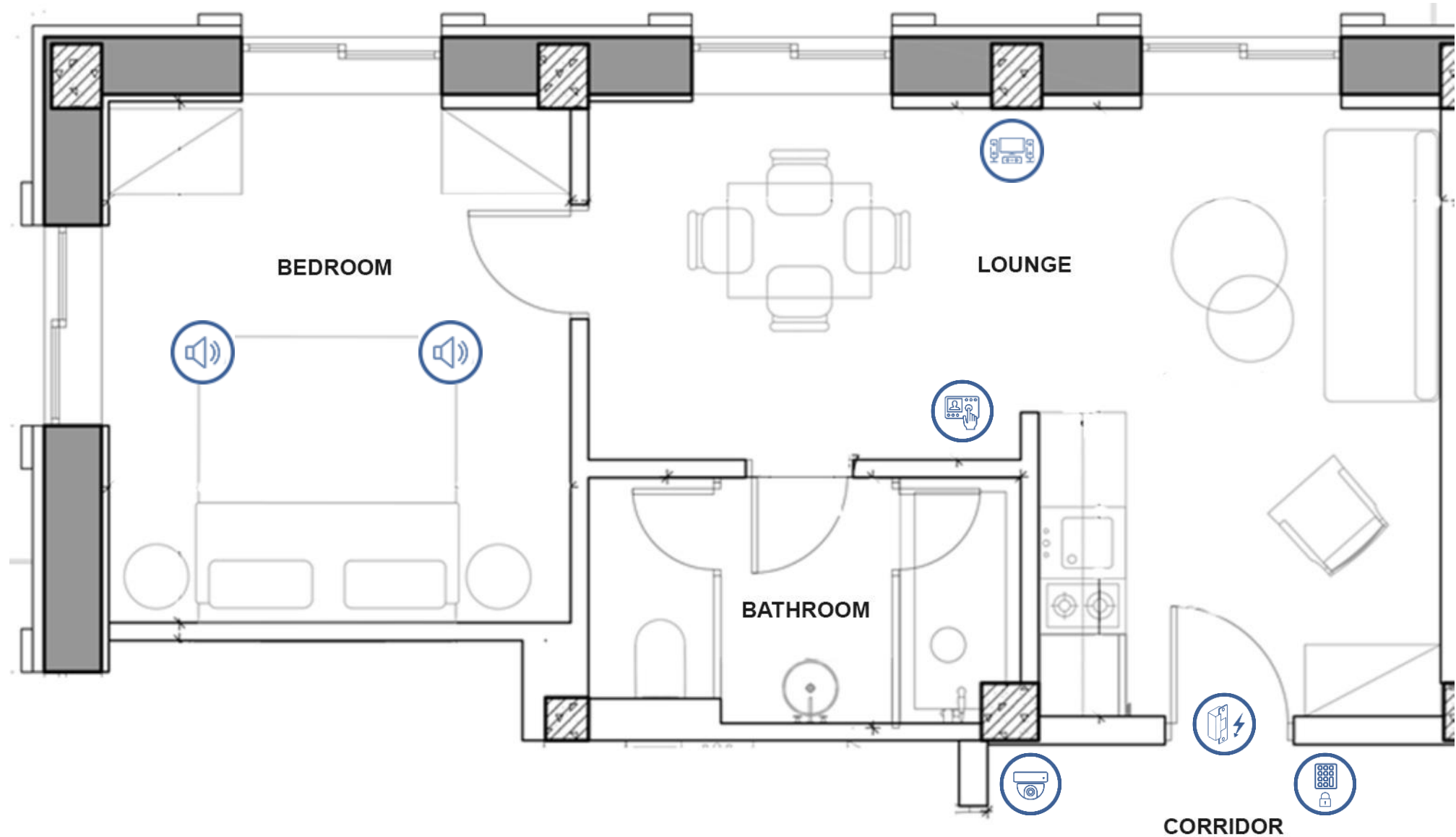
Door Electric Strike



Home Theater



Ceiling Speakers



# Access control – CCTV – Door Phone

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Monitor Door  
Phone

The monitor door phone is used to check a visitor ringing the door bell in order to give him access



IP Camera  
Dom 360

The 360 Dom Camera is installed outside the room and used as a security measure to check people accessing the apartment.



Access Control  
Keypad

The access control keypad is used by the visitor in order to access the room. When the visitor makes a reservation, he receives a four digit code. After entering this code into the keypad, then he can enter the room



Multimedia

Integration of audio and video multimedia devices such as:

- Integration of AV systems
- Music playback from smartphones or tablets
- Integration with TV, YouTube®, Spotify®, and other streaming services



Door Electric  
Strike

The door electric strike triggers the door to open if a valid access code is entered in the access control keypad

# Produced Prototype

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We have developed a **first prototype** of the platform that includes:

- Reservation date and time based key PIN generation for the smart locks
- Guest automated mobile check and room entry
- Access control reporting
- Basic Calendar functionality with reservations and generated PINs

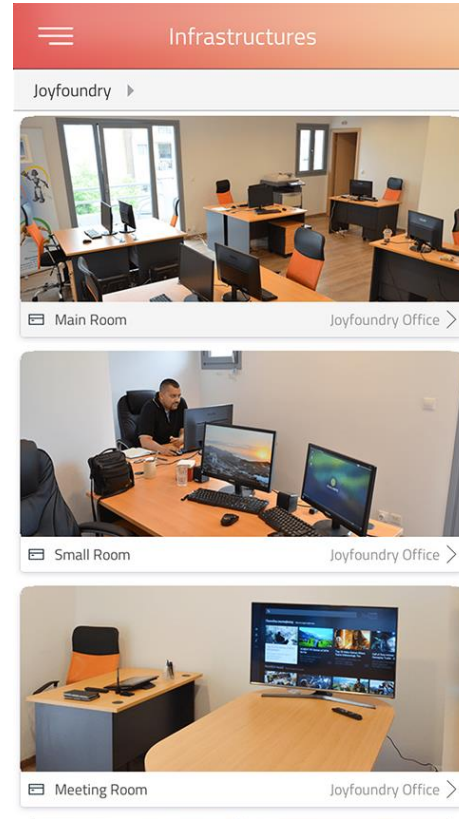
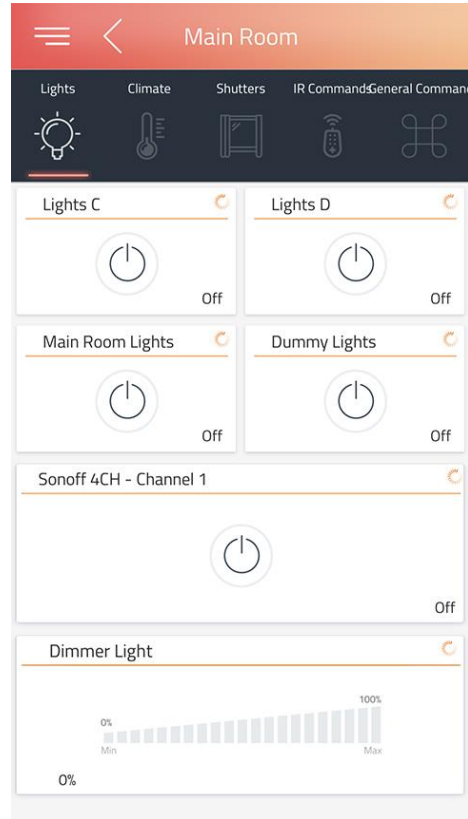
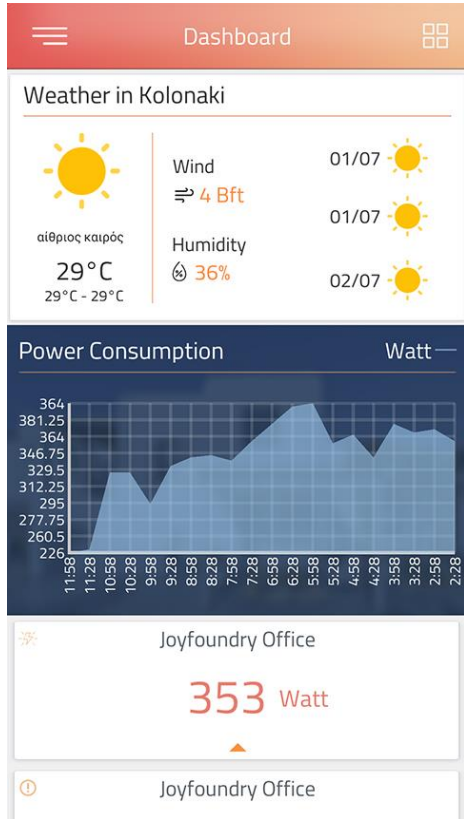


## Prototype Tested in the following Hotels

- BNB Luxury Apartments near Acropole in Athens, Greece
- Building of Luxury Apartments near Syntagma Square in Athens, Greece
- Hotel of Luxury Apartments at Klafthmonos Square in Athens, Greece

# Produced Prototype

Mobile and Desktop screenshots of the developed prototype





# Additional Applications (Industrial)

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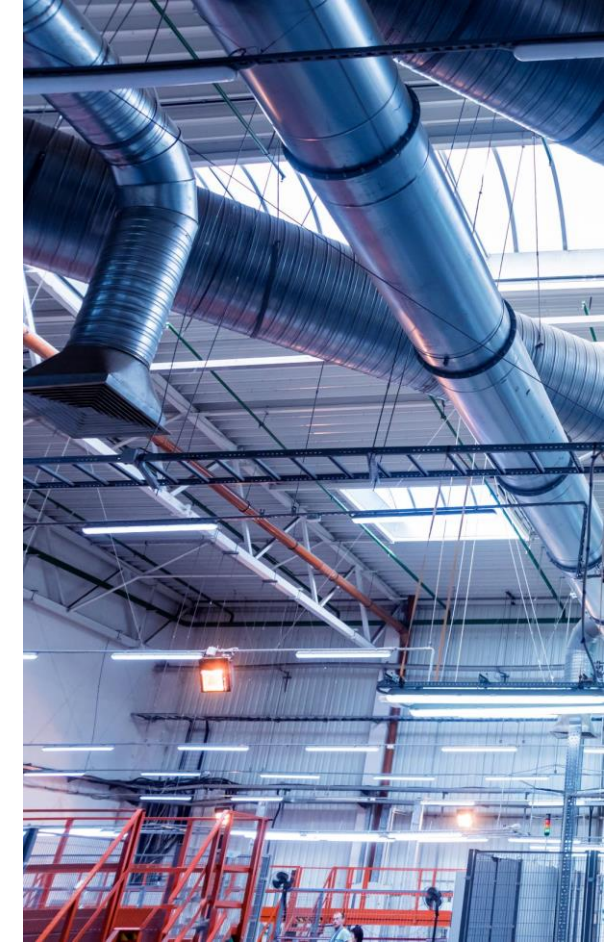
In Addition we offer applications in the industrial sector of the Hotels referring to:

- **HVAC Control for large facilities**

By using Programmable Logic Controllers we offer an ideal solution for the automation of machines and production lines where high number of various input, output and communication connections per single PLC is desirable.

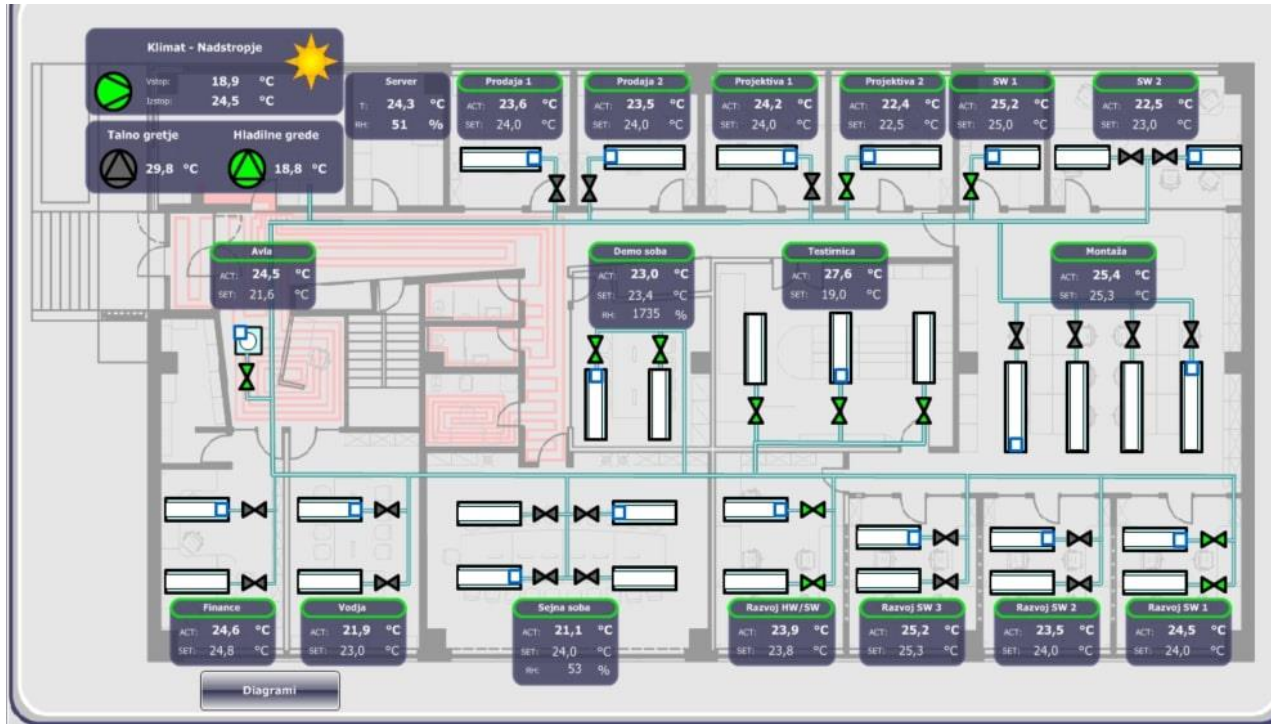
- **Industrial automation & Control systems**

By using Programmable Controllers we enable energy-efficient control for heating, ventilation and air conditioning applications in building. Independent of whether the desired temperature is given by the user, automatically according to the room usage or centrally from the facility management, the controller reacts accordingly. Exactly the required room climate – simply, precisely and economically.



# Building Management System (BMS)

Building Management System (BMS) offers advanced supervision control over all automation systems of the building and is part of the Keyoinic building automation system

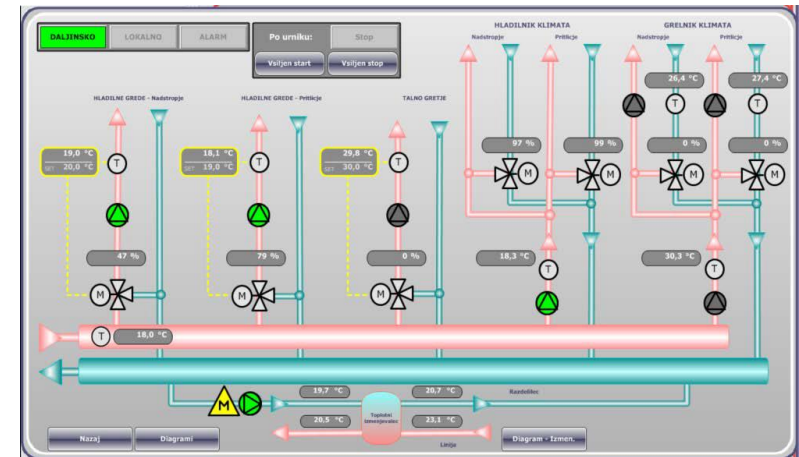
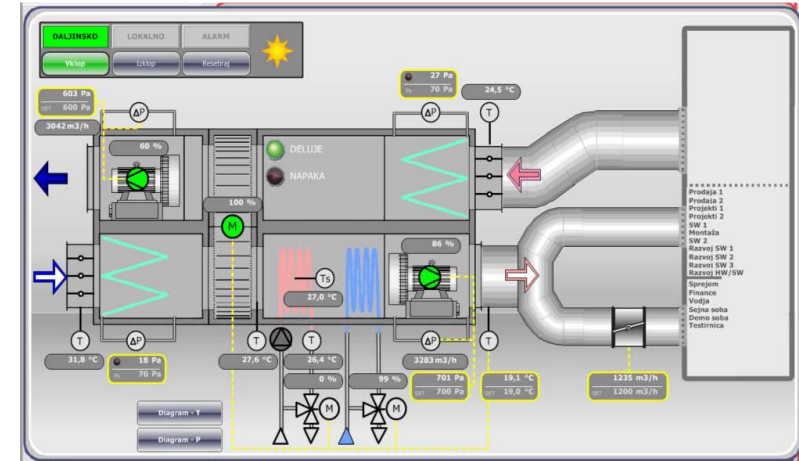


BMS software is used in buildings to control and monitor the building's mechanical and electrical equipment systems such as Heating Ventilation and Air-conditioning (HVAC), lighting, power systems, fire systems, access control, security systems and others.

# Building Management System (BMS)

Based on online data acquisition from building automation controllers it provides to operator next features:

- graphical presentation of processes, values or statuses from each space,
- commands and parameters for controlling these processes,
- alarm management,
- logging feature,
- graphical presentation of trends,
- scheduling of events,
- data exchange with other property management systems, eg. Hotel Management System,
- remote maintenance,
- multilingual,
- user and password management.



# Our Partners

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Thank you

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Keyonic