INSTANT
LightLogic

The outdoor lighting controller
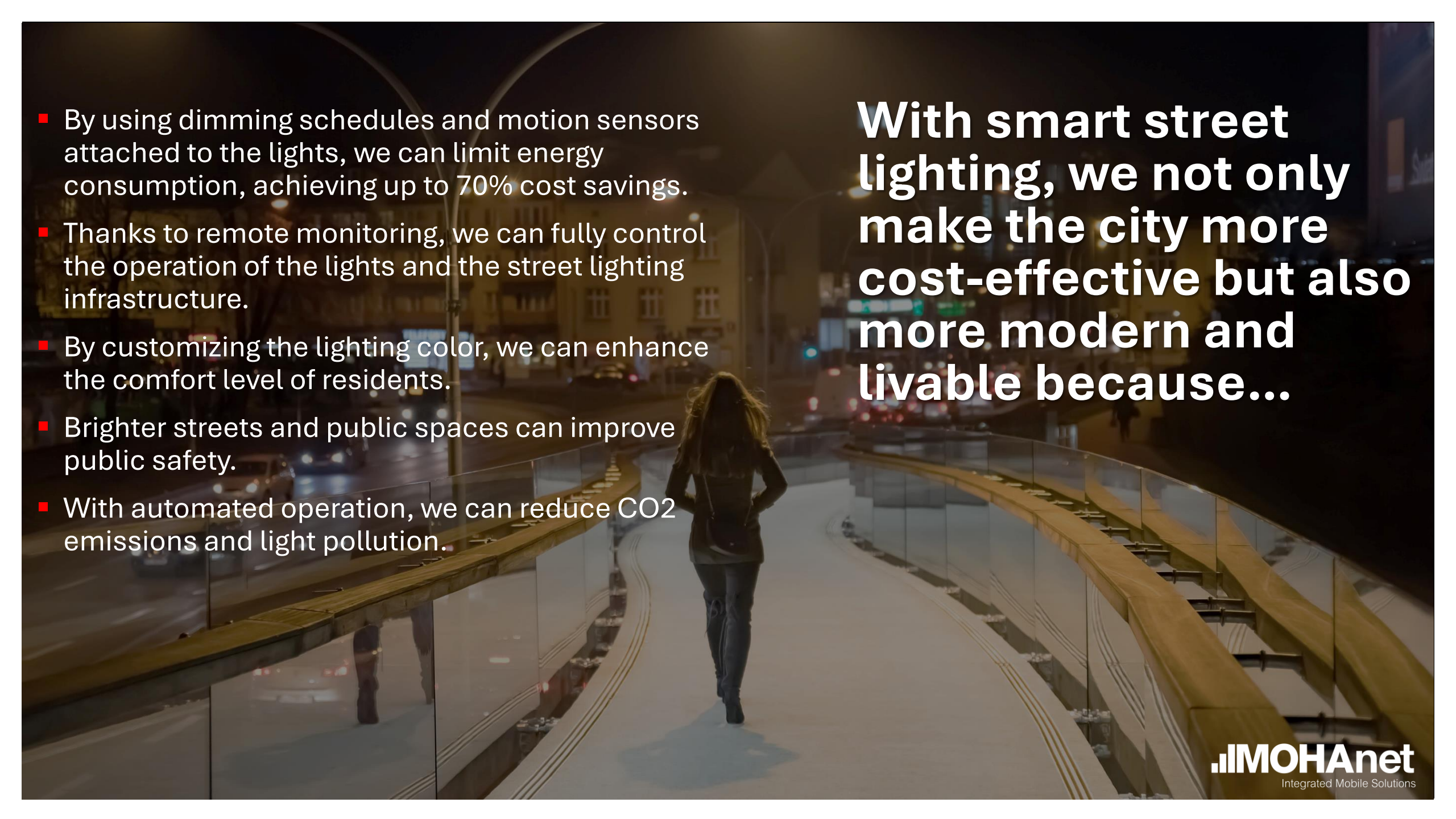
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Smart Street Lighting
for Sustainable Cities

Nowadays, almost all city leaders are concerned with rising energy costs and potential savings.

Modernizing street lighting is the first step toward drastically reducing urban energy expenses and realizing the concept of smart cities.

Completely replacing streetlights represents a significant expense for a city, but due to the predictable return on investment, many Energy Service Companies (ESCOs) offer financing options for the project, which may not even require any equity investment.

- By using dimming schedules and motion sensors attached to the lights, we can limit energy consumption, achieving up to 70% cost savings.

- Thanks to remote monitoring, we can fully control the operation of the lights and the street lighting infrastructure.

- By customizing the lighting color, we can enhance the comfort level of residents.

- Brighter streets and public spaces can improve public safety.

- With automated operation, we can reduce CO_2 emissions and light pollution.

With smart street lighting, we not only make the city more cost-effective but also more modern and livable because…

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Discover a New Dimension of Street Lighting

Central Control Platform

The **MONITORINGBOOK** is a unified central control platform that allows the management and supervision of street lighting infrastructure. Through this platform, you can monitor and control the settings and operation of each streetlight or group of lights, receive real-time notifications about operational failures, create personalized lighting rules, calculate energy costs and savings, and generate reports and analyses.

This high-security web-based platform can be accessed remotely at any time, from anywhere, using a standard web browser.

Advanced VPN and data encryption technology ensure that the system's operation and data transmission comply with international security and protection standards.

hu / **en** / sk

MONITORINGBOOK PRO

Please login below to proceed

Username

Password

Login

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Alarm Monitoring

Patrol Monitoring

Firesignal

SmartAlarm

Vehicle Monitoring

Measurements

Access Control

Lighting Control

Indoor Positioning

Remote Video Controll

Telemedicina

Consumption Monitoring

Thanks to its modular design, the **MONITORINGBOOK** allows comprehensive control, remote supervision, and incident management of numerous IoT applications and Smart City solutions, which can be operated either automatically or with the assistance of a 24/7 dispatcher service.

The central control platform can also connect to intrusion and fire alarm systems,

passenger and freight elevators, environmental sensors, electric vehicle chargers, disaster management systems, weather stations, traffic equipment, street emergency call terminals, personal monitoring devices (e.g., senior citizen emergency alarms), and devices for supervising the activities of physical workers (such as wardens, security guards, maintenance staff, gardeners, and sanitation workers).

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Step into the World of Lighting Management

Control Your Streetlights Remotely

Manage your streetlights individually or group them into clusters. Set up city-wide lighting control based on specific days and events or let the motion sensors on the light poles handle it, automatically adjusting the lighting based on human movement. Customizing lighting rules to suit specific needs is no longer a challenge. You can increase brightness in busy areas or during unexpected events at any time.
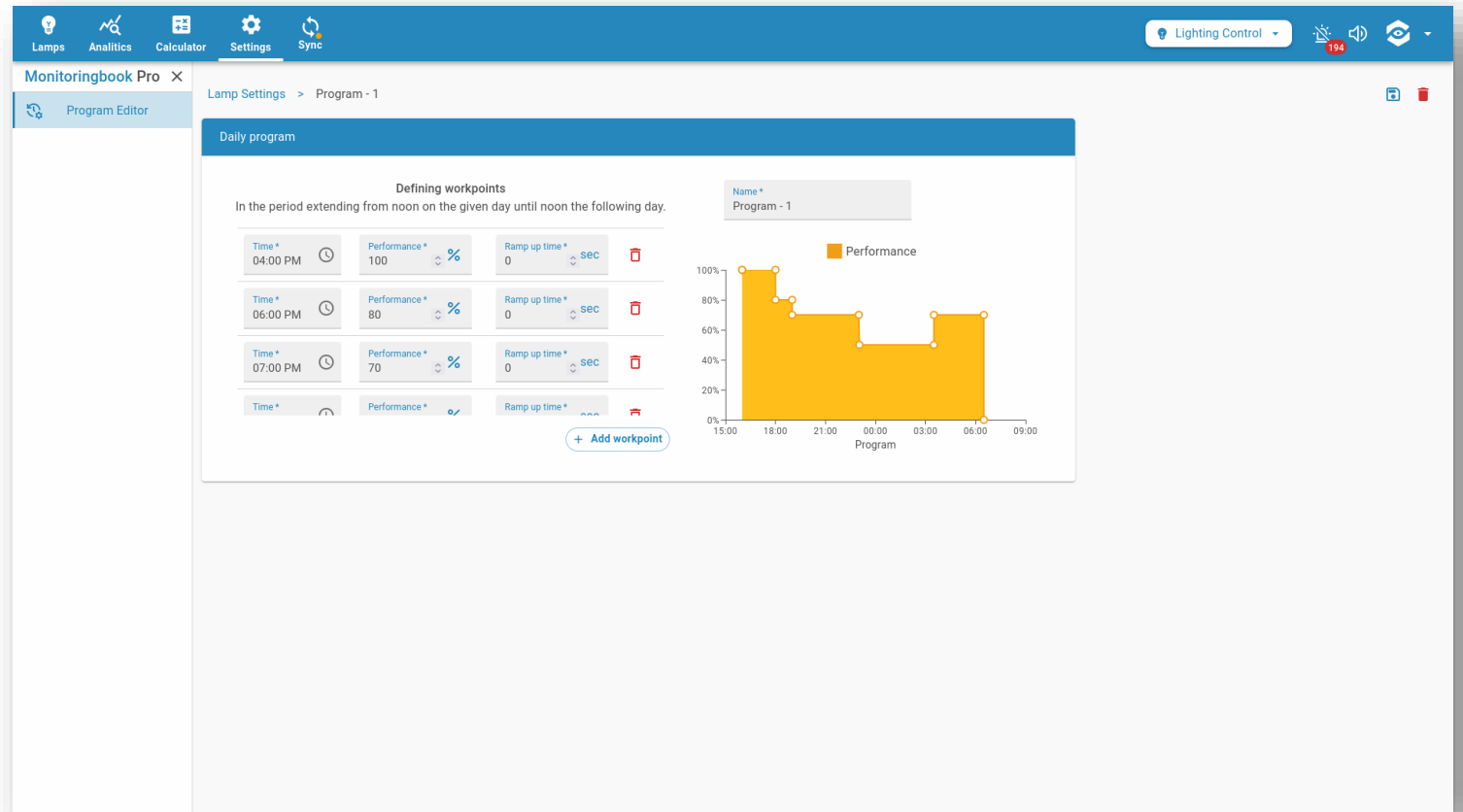
Adjust the Colors of Street Lighting

Enhance the well-being of residents by providing the right atmosphere. By selecting the appropriate color depth and tone (RGBW), you can create any color from the spectrum or any shade of white. Colors can be scheduled for specific days or festive events and can also be controlled based on motion detection.
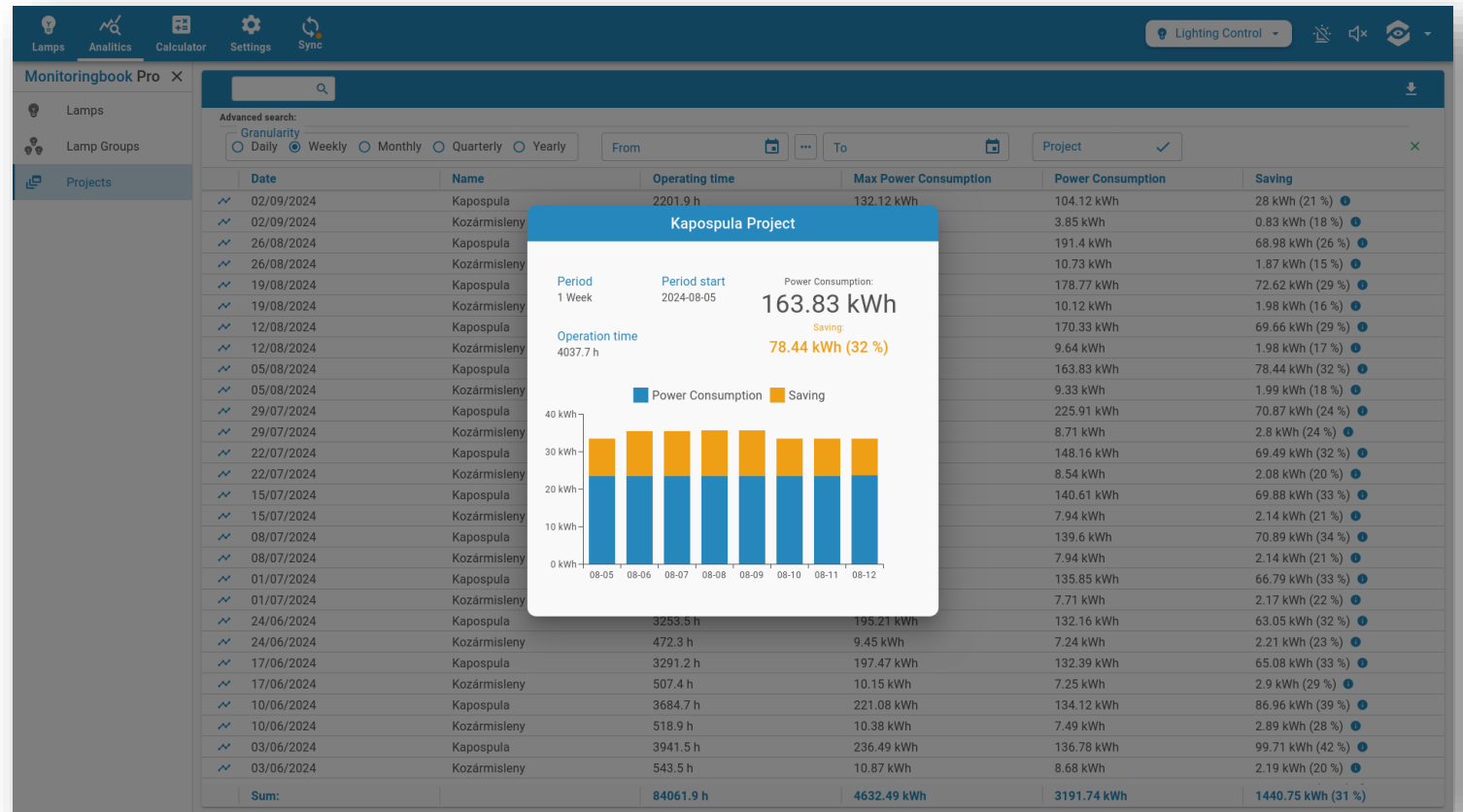
Review Operational Incidents

Monitor the remote configuration of dimming schedules, the firmware updates of Zhaga GSM lighting controllers, the successful download of preset lighting rules, and alerts about malfunctions in the street lighting infrastructure, ensuring proper handling of each situation.

Monitor Issues and Respond in Time

Any status change in individual streetlights or groups generates a real-time event alert within the software. Along with various status updates, alerts are also sent when errors or outages occur in the system. A street-level and house number-level map is available to the operator to pinpoint the exact location of the issue, providing visual guidance to the maintenance staff for quick troubleshooting.

Optimize Your Energy Costs

Create different dimming schedules for individual lights or groups, allowing the program to calculate the estimated energy consumption, cost, and potential savings. By modifying or combining operational rules, you can optimize energy costs, resulting in long-term sustainability for the city.

Instant Street Lighting Controller
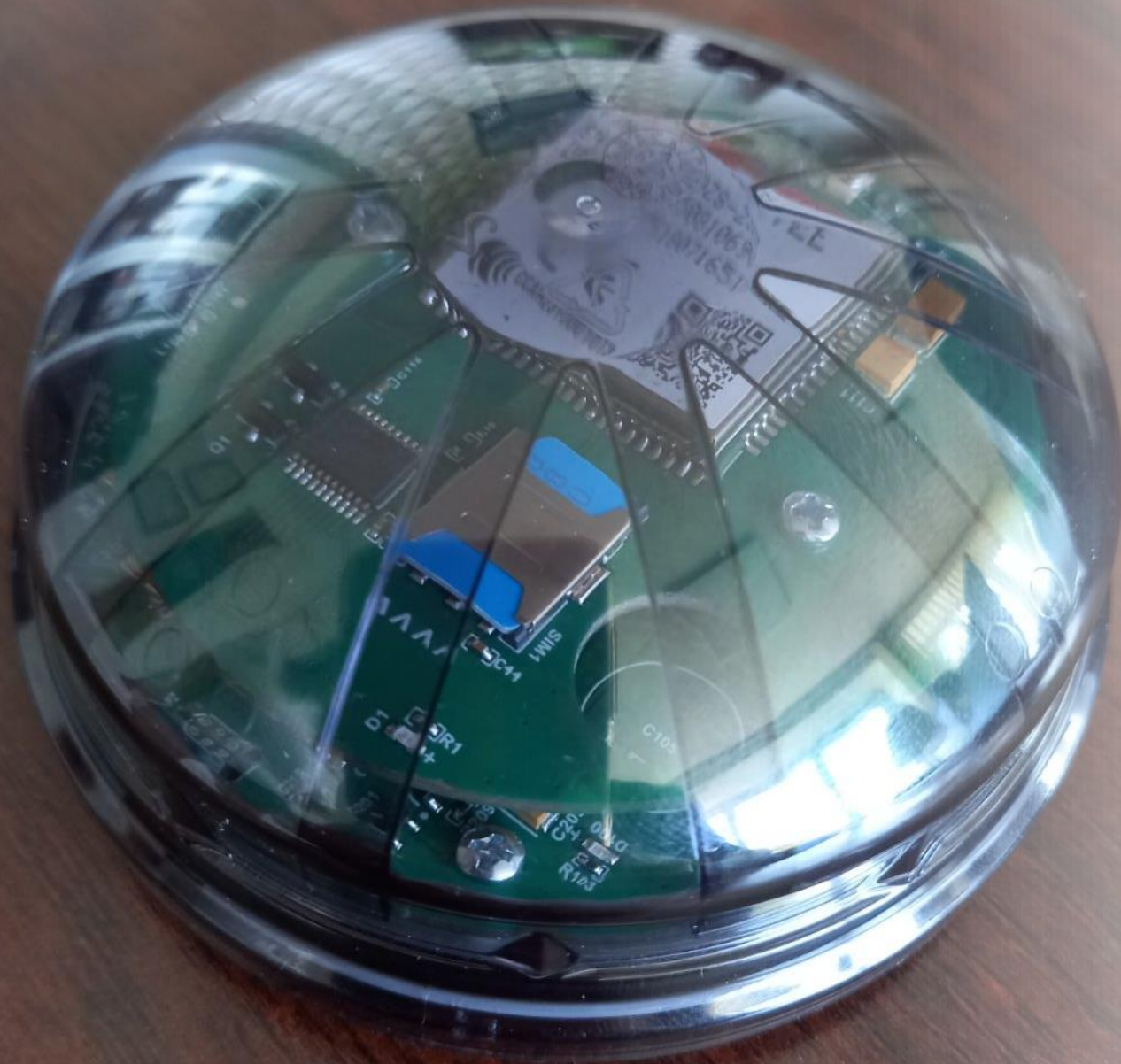
Delegate the remote control of streetlights to the **INSTANT LIGHTLOGIC outdoor lighting controller.** Its standard Zhaga connector ensures universal compatibility with light fixtures and allows for quick, tool-free installation.

The **INSTANT LIGHTLOGIC outdoor lighting controller** communicates via the GSM network, enabling it to connect directly to local cell towers (2G, 4G) without the need for a dedicated gateway.

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What sets the **INSTANT LIGHTLOGIC outdoor lighting controller** apart from its competitors is that its price includes a built-in international roaming SIM card and five or ten years' worth of data traffic, along with cloud services.

As a result, the device incurs no additional costs for the operator, meaning there are no monthly service fees. Thanks to the roaming SIM service, the **INSTANT LIGHTLOGIC outdoor lighting controller** always uses the mobile network with the best coverage at the installation site, reducing operational risks. The device operates in 96 countries at the same cost.

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Key Features
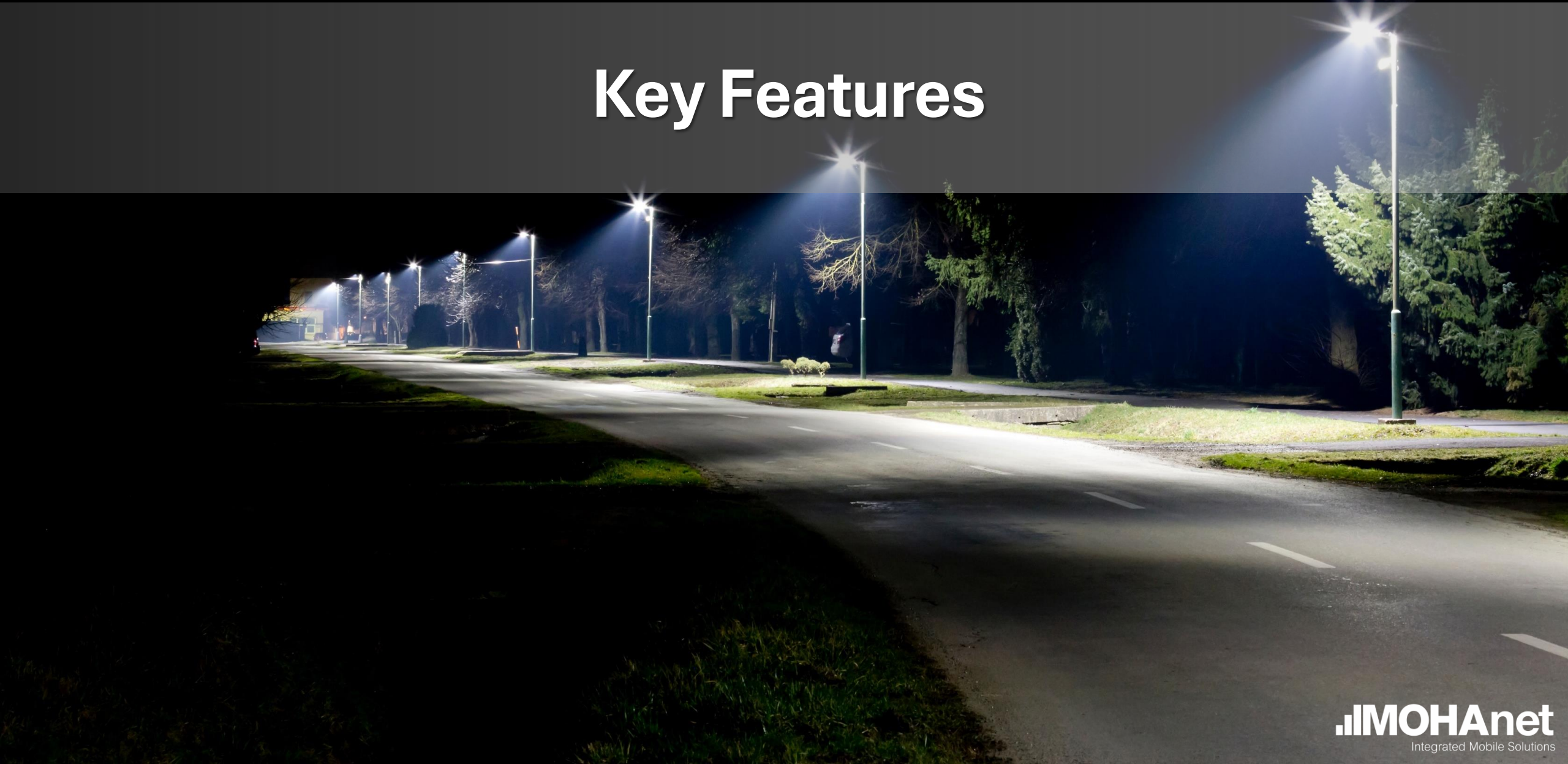
Secure GSM/LTE Communication

Mobile networks provide long-range communication, wide coverage, and high availability, meeting the highest global security standards, with billions of devices using them today. The INSTANT LIGHTLOGIC outdoor lighting controller comes with an LTE (4G)-capable modem and a built-in international roaming SIM card, as well as channel-encrypted networks (Corporate APN/VPN) to ensure the encryption of event messages.

Simple Operation

Unlike protected network providers (e.g., LoRa, Sigfox, Zigbee), GSM does not require local gateways, so the INSTANT LIGHTLOGIC outdoor lighting controller connects directly to the MONITORINGBOOK central control platform via the mobile service provider's network. This eliminates the need for maintaining locally established network infrastructure, as mobile providers handle and maintain their own networks.

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Easy Registration

The INSTANT LIGHTLOGIC outdoor lighting controller is supplied with a unique device identifier, simplifying its registration in the MONITORINGBOOK central control platform.

UNITID 19534

Tool-Free Installation

The connector of the INSTANT LIGHTLOGIC outdoor lighting controller is fully compliant with the Zhaga Book 18 standard, allowing it to be securely attached to streetlights by screwing it in externally, tool-free, and locking it in place—providing a true plug-and-play connection.

It can operate with any Zhaga-compatible LED light fixture from any manufacturer without the need for additional accessories or specialized tools.

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Built-In GPS Location

The built-in GPS facilitates the automatic geolocation and commissioning of streetlights, eliminating the need for on-site administration and specialized training for operational staff.

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Built-In Ambient Light Sensor

The INSTANT LIGHTLOGIC outdoor lighting controller is equipped with an integrated photocell light sensor that enables automatic switching of streetlights on and off based on external lighting conditions.

Motion Sensor Support

During off-peak hours, the adaptive mode supported by motion sensors offers significant advantages. The INSTANT LIGHTLOGIC outdoor lighting controller is compatible with any DALI or contact output motion sensor, capable of detecting pedestrian, cyclist, and vehicle movement. In this case, the lighting brightness is adjusted based on human presence.

Flexible Light Management

Different parts of a city may have varying street lighting requirements, to which the outdoor lighting controller adapts flexibly, supporting individual configurations for each light. It can also support custom lighting effects for specific needs, such as special illumination of streets for events or indicating evacuation routes in emergencies. Warmer color profiles can be set to create a suitable atmosphere for both citizens and nocturnal wildlife.

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Versatile Dimming Control

The electrical infrastructure varies from city to city, and different types of light fixtures and drivers are often encountered. For this reason, the INSTANT LIGHTLOGIC outdoor lighting controller offers interoperability to meet local needs, supporting multiple dimming protocols: 0-10V*, DALI, DALI 2, and D4I.

*For LED drivers with 0-10V dimming, they must support 24V auxiliary power. However, in this case, the sensor input will be used, so motion sensor support is unavailable.

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Selectable Lighting Modes

RGBW-based (on multiple addressable DALI DT6, DT8 device types)

Adaptive Lighting-based (brightness control + motion sensor)

Dusk-based (ambient light sensing)

Autonomous-based (brightness control)

Manual-based (emergency)

Calendar-based (schedules)

Time-based (lighting scenes)

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Fixture Status Monitoring

The INSTANT LIGHTLOGIC outdoor lighting controller, when combined with an intelligent LED driver (D4i/ANSI c137.4-2019), provides valuable data about the power network and the condition of the light fixtures. This information supports fault analysis and helps forecast device lifespan, aiding in budgeting.

Based on the DALI D4i standard, the INSTANT LIGHTLOGIC outdoor lighting controller transmits the following data to the MONITORINGBOOK central control platform for infrastructure monitoring and intelligent maintenance of the LED driver and light fixture:

Grid voltage (control voltage)

Network current

Energy consumption (active, reactive)

Operating time of the lamp and LED driver (dimmer)

LED driver temperature

Power (active, reactive, apparent)

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Over-the-Air Software Updates

Remote software updates are a crucial feature for street lighting controllers, particularly for deploying security patches and fixes. With the MONITORINGBOOK central control platform, the embedded software of lighting controllers can be updated in minutes, rather than weeks or months.

Bird-Beak and Weatherproof Housing

The INSTANT LIGHTLOGIC outdoor lighting controller's housing is designed for robustness and weather resistance, ensuring long-term operation. It comes with an IP66-rated, UV-stabilized casing to withstand various weather conditions and the curious pecks of hard-beaked birds.

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System Benefits

Comprehensive Control of Lighting Infrastructure

You can remotely monitor, manage, and control individual street lamps or groups of lamps.

Up to 70% Energy Savings and CO2 Prevention

By replacing old street lights with LED technology and scheduling the lighting in advance, the brightness can be dimmed automatically. This results in significant energy savings while also reducing CO2 emissions.

Up to 50% Reduction in Maintenance Costs

Error notifications, alerts, or shutdown warnings optimize maintenance and reduce costs by up to 50%.

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No monthly fees for operation
The INSTANT LIGHTLOGIC outdoor lighting controller has a built-in international roaming SIM card and a data package for 5 or 10 years, with a cloud based MONITORINGBOOK central control platform for infrastructure monitoring and intelligent maintenance of the LED driver and light fixture.

Energy Efficiency Investment Reimbursement
The Hungarian Energy Efficiency Obligation System (EKR) (17/2020. (XII. 21.) decree by MEKH) allows municipalities and companies, as end-users of energy, to create a valuable asset by implementing energy efficiency improvement projects or measures. These can be sold to energy suppliers (Obliged Parties) within the EKR. With this certified energy efficiency investment, you can reduce the overall cost of your project!

Reduced Light Pollution
During off-peak periods, street lamps dim to a pre-set lower level, reducing light pollution and improving the night-time environment.

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References

Kapospula

Kozármisleny

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Thank you for your attention!

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