

ORCHESTRA CALM IOT SYMPHONY

OPTIMIZING ENERGY EFFICIENCY AND SUSTAINABILITY IN COMMERCIAL BUILDINGS

About CTHINGS.CO

CTHINGS.CO®

At CTHINGS.CO, we are pioneers in Edge Computing, IoT, and 5G technology. Our innovative Orchestra Platform and Edge IoT Gateways enable real-time data processing, seamless integration, and powerful insights to drive efficiency and sustainability across various sectors. From smart cities to Industry 4.0, we empower organizations to embrace the future of technology with scalable, adaptable, and data-driven solutions.

About INGY

INGY

INGY specializes in advanced lighting control solutions designed to transform commercial buildings into intelligent, data-driven environments. By using smart lighting as the backbone for IoT innovation, INGY enables energy efficiency, people counting, asset tracking, and other advanced building management capabilities. Their solutions enhance sustainability, reduce operational costs, and support smarter decision-making through real-time data insights.

The Challenge



Commercial buildings often struggle with inefficiencies in lighting and space utilization, leading to unnecessary energy consumption and increased operational costs. Traditional lighting control systems lack adaptability and fail to leverage real-time data for optimization. Beyond lighting, building operators can also face challenges in **tracking occupancy, optimizing space usage, and managing assets efficiently.**

The Solution



CTHINGS.CO provides the solution with **INGY** towards clients, demonstrating just one of many use cases for its technology. By leveraging **Edge IoT Gateways** and the **Orchestra Platform**, the system integrates sensors to monitor occupancy, ambient light levels, and usage patterns. This **real-time data enables automated lighting adjustments, ensuring lights are only active when needed, improving energy efficiency and reducing waste.** The system can be managed remotely, allowing for predictive analytics that enhance maintenance strategies and overall system optimization. Furthermore, the integration of people counting and asset tracking enhances space utilization, allowing businesses to make informed decisions about workspace optimization and resource allocation.

Orchestra Platform offers robust capabilities in IoT application management and analytics, providing a scalable foundation for organizations seeking to expand their smart building solutions. With its open integration to other systems within the building, secure data management, and reliable over-the-air provisioning (OTAP) of firmware on devices, Orchestra ensures flexibility, reliability, and security. Featuring Containerized Application Lifecycle Management (CALM), flexible deployment options, and centralized control, Orchestra is designed to support a broad range of IoT applications, including intelligent building management.

The Result



The implementation of this intelligent lighting system has led to significant improvements in energy efficiency, cost savings, and overall building management.

- **Energy Efficiency:** Significant reduction in energy consumption by ensuring lighting operates only when needed.
- **Lower HVAC energy costs:** Feeding presence information to the Building Management System can optimize HVAC energy usage by 40%.
- **Lower OpEx:** Lower operational costs through optimized energy use and reduced maintenance expenses.
- **Enhanced Comfort & Productivity:** Smart lighting control improves occupant comfort and work efficiency.
- **Optimized space usage:** By understanding how the space is used, you can reduce the m² per employee.
- **Increased retail revenue:** Optimizing your store layout based on foot traffic can increase revenue.
- **Reduced medical equipment costs:** Tracking medical equipment in real-time allows you to reduce the amount of equipment by 10%.

The Key Role of Orchestra

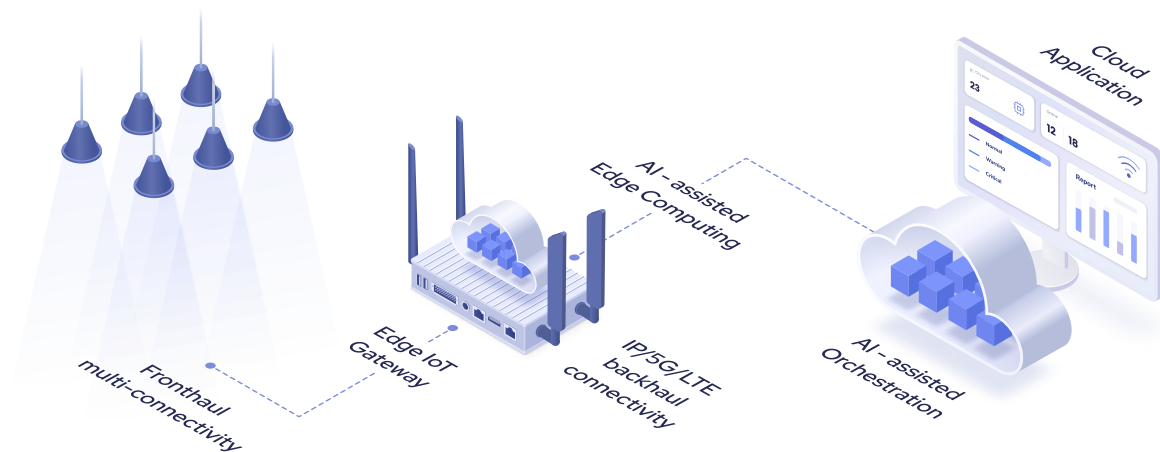


Orchestra is an IoT platform that provides centralized management of IoT networks, applications, and edge devices. It plays a vital role in smart lighting solutions by enabling efficient, data-driven lighting control and optimization, with key features, such as:

- **Edge Computing for Real-Time Processing:** Reduces response times for lighting adjustments.
- **Seamless Integration:** Works with existing infrastructure for flexible and efficient implementation.
- **CALM for Seamless IoT Device Management:** Ensures efficient deployment, updates, and scalability regardless of the number of devices.
- **Automated Energy Optimization:** Uses real-time data to adjust lighting dynamically, cutting down energy waste.
- **Remote Monitoring & Control:** Enables facility managers to make adjustments anytime, anywhere.
- **Predictive Analytics:** Provides actionable insights to optimize energy use and maintenance.

By leveraging advanced edge IoT-driven lighting solutions, businesses can transform traditional commercial spaces into intelligent, efficient, and sustainable environments.

The collaboration between **CTHINGS.CO** and **INGY** showcases the potential of smart lighting to serve as the foundation for broader building automation, demonstrating how IoT innovation can drive both **operational excellence and sustainability** in modern building management.



Start your digital transformation journey

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or

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