

CASE STUDY

Techcombank

PROJECT SUMMARY

Name of the project

Vietnam Technological and Commercial Joint-Stock Bank (Techcombank)

Type of Building

Office

Location

Ho Chi Minh City, Vietnam

The Requirement

- Energy Saving
- Sustainable Building
- Centralized Building Automation via BMS Integration
- Improve Customer Experience

Size of Installation

2500+ Lights

Partner

LK Engineering

Devices

- Radiar AF10
0-10V fixture controller
- Radiar ARD32
DALI 2.0 controller with thirty-two drivers control
- Cyrus AM
Microwave motion & light sensor
- SCU Wall Remote
Self-powered smart panel
- Catron V
Wireless 5 button remote
- Senior E
Beacon & range extender

BACKGROUND

Techcombank, officially known as Vietnam Technological and Commercial Joint-Stock Bank, has been a prominent player in Vietnam's commercial banking sector since its establishment in 1993. As part of their commitment to sustainability and operational efficiency, Techcombank embarked on an ambitious project to renovate its iconic Head Office building in Ho Chi Minh City, Vietnam.

For this monumental undertaking, they turned to Lumos Controls, a leading provider of Simplest Lighting Controls, represented in Vietnam by LK Engineering. Collaborating hand in hand with LK Engineering, our team of experts at Lumos Controls set out to revolutionize the lighting system of the 26-storey building, encompassing 5 basement levels and 21 top floors.

OBJECTIVE

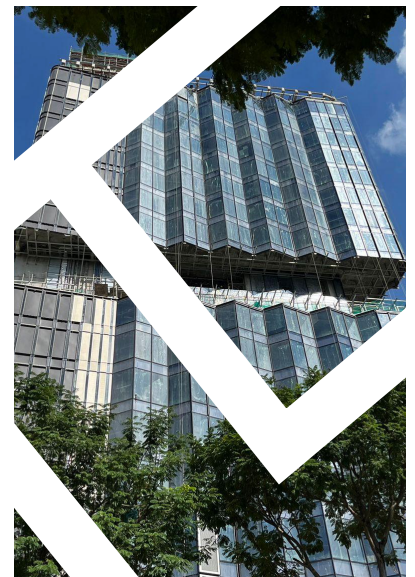
The primary objective was to create a superior and more flexible control system, allowing for customizable lighting solutions that adapt to various scenarios and user preferences. This system aimed to improve customer experiences, create a productive atmosphere, and enhance the overall well-being and satisfaction of employees. The project focused on implementing centralized building automation by seamlessly integrating with the Building Management System (BMS). Through the strategic implementation of lighting controls, Techcombank further aimed at substantial energy savings, driving cost reduction and promoting sustainable, green building practices.

CHALLENGES

The Techcombank Head Renovation project presented a series of significant challenges due to its vast scale and complexity. With 26 stories, including 5 basement levels and 21 top floors, each requiring distinct lighting controls, sensors, switches, and range extenders, meticulous planning and innovation were imperative. Integrating all these devices seamlessly with the Schneider EcoStruxure Building Management System (BMS) posed an intricate technical task.

Preserving the building's architectural beauty and upholding the designers' intent stood as a top priority. The visibility of sensors needed to be minimized, ensuring that the lighting products seamlessly blended with the architectural design.

Unique challenges emerged within the glass meeting rooms, where conventional wired devices were impractical for lighting control. Custom configurations had to be devised to control lights in these spaces effectively.



SOLUTION

To address the complex lighting requirements of the Techcombank Head Office building, Lumos Controls proposed its Wireless Lighting Control Ecosystem with Automation via BMS integration. Using Lumos Controls mobile app these lighting devices can be configured and controlled from any mobile device. This comprehensive solution not only optimized energy consumption but also ensured a comfortable and productive work environment, all while preserving the building's aesthetics.

Essential elements of the solution involved thousands of Lumos Controls wireless devices, including lighting controllers, sensors, switches, and range extenders, strategically installed throughout the building. Notably, the **Radiar AF10**, a 2-channel AC-powered 0-10V fixture controller with an inbuilt relay, offered dual-channel dimming and tunable color temperature control, seamlessly mounted in electrical junction boxes on each floor.

The highly flexible and cost-effective **Radiar ARD32**, a 32 Child DALI Room Controller, enhanced control over individual cabins and conference rooms, while the **Cyrus AM**, Wireless Microwave Motion & Day Light Sensor is ingeniously concealed under the false ceiling, ensuring that the designers' intent remains undisturbed while maintaining accurate motion detection and precise lighting control.



The **SCU Wall Remote**, self-powered wireless smart panel features a built-in energy harvesting module that converts mechanical energy into electrical energy, powering the Bluetooth chip. These battery-less panels have been strategically employed in the glass meeting rooms, eliminating the need for wiring and allowing for custom configurations to be easily set.

The user experience was further enriched with the **Catron V** - a wireless 5-button remote switch. This intuitive switch empowered employees to conserve energy by enabling precise ON/OFF, intensity, and color temperature adjustments for LED lights within specific groups.

To extend the wireless mesh network's coverage and ensure seamless communication between different corners of the floor, Lumos Controls strategically positioned the **Senor E**, a bi-directional communication device. This innovative range extender and beacon support, powered via USB significantly enhanced the network's efficiency and overall performance.

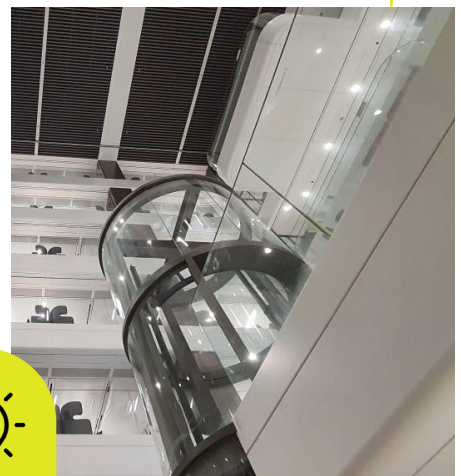
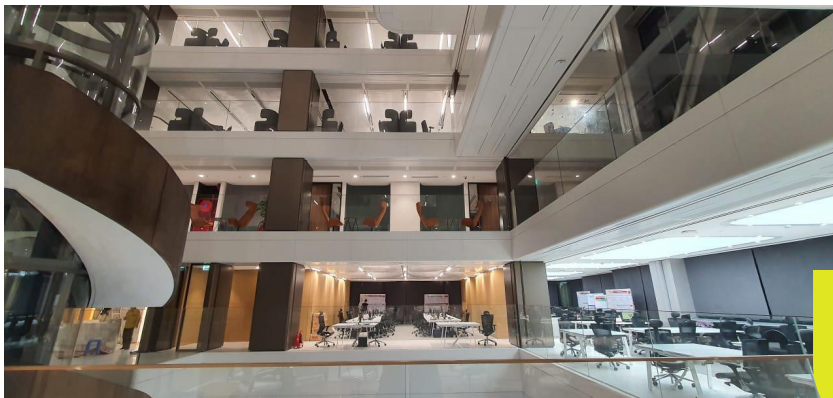
Furthermore, Lumos Controls' mesh network was thoughtfully integrated with the Schneider EcoStruxure Building Management System (BMS). This integration centralized the control of lights and other electronic devices across Techcombank's facility, promoting streamlined operations and achieving Techcombank's vision of centralized building automation.

RESULT

Implementing Lumos Controls' lighting control ecosystem for 2500+ lights proved pivotal in optimizing energy consumption and achieving a sustainable, carbon-neutral building. The integrated system, seamlessly connected to the Building Management System (BMS), enabled centralized building automation, streamlining operations and enhancing resource efficiency.

The new lighting system played a pivotal role in creating an elegant ambience that elevated the overall customer experience. From the moment visitors stepped foot into the building, they were greeted with a warm and inviting atmosphere, leaving a lasting impression.

Moreover, the lighting ambience was thoughtfully configured to enhance the well-being and productivity of employees. The dynamic lighting solutions contributed to fostering a positive work environment, increasing employee satisfaction, and boosting overall productivity.



ABOUT LUMOS CONTROLS

Lumos Controls is the world's simplest smart lighting control that allows you to create exceptional lighting experiences for smart enterprises. The ecosystem features controllers, sensors, switches, gateways, mobile and web apps to set up basic to advanced smart controls. Lumos Controls offers you the freedom to decide what to achieve and how to grow and step into a sustainable future.