NEX Shopping Mall Implements Indoor Air Quality Monitoring to Ensure Good Air Quality and Optimize Energy Consumption

The Challenge

NEX mall faced the challenge of maintaining consistent comfort and air quality in a dynamic, high-traffic environment. Balancing energy efficiency with optimal conditions further complicated operations.

The Solution

Partnering with UnaBiz, NEX integrated IAQ monitoring with its HVAC system. Utilizing LoRaWAN IAQ sensors and Honeywell's management system, NEX achieved real-time control and automation, optimizing airflow and energy use.

The Results

Benefits of the solution include:

- Enhanced indoor environment, ensuring safety and well-being for shoppers and staff.
- Improved energy efficiency, reducing carbon emissions and aligning with ESG goals.
- Aligned with UN Sustainable Development Goal
- Earned Green Mark Goldplus certification from the Building and Construction Authority, showcasing sustainability efforts.

IoT Network Operator

Unabiz is a prominent massive IoT service provider and integrator, specializing in innovative solutions for diverse industries. Leveraging their expertise in IoT technology.
www.unabiz.com

Solution Partner

Honeywell is a global leader in technology solutions, offering a wide range of products and services for building controls, aerospace and performance materials.
www.Honeywell.com

Customers

NEX Mall is the largest suburban shopping center in Singapore's northeast region, boasting 635,000 square feet of retail space and welcoming an average of 3 million shoppers each month

Technopolis enjoys 30% energy saving on heating and 50% energy saving on ventilation with Lassila & Tikanoja and Connected Inventions' smart building solution on the 0G Network

The Challenge

As a leading provider of shared workspace environments, Technopolis wanted a solution to reduce energy consumption and CO2 emissions to improve customer value, advance sustainability reporting, and better meet its ESG goals in commercial buildings.

The Solution

In partnership with Lassila & Tikanoja and Connected Inventions, Technopolis deployed an IoT solution that remotely monitors and optimises ventilation, energy usage, and indoor air quality connected to the 0G Network.

The Results

The benefits of smart building solution of Technopolis include:

- 30% of energy savings on heating
- 50% of energy savings on ventilation
- Reduced CO2 emissions
- On-demand maintenance
- Optimal occupancy conditions
- Accurate ESG reporting
- Compelling ROI

0G Network Operator

Connected Finland operates dedicated IoT networks powered by global Sigfox technology across Finland, covering 85% of the country's population. www.connectedfinland.fi/

Solution Partner

Lassila & Tikanoja is a service company that makes the circular economy a reality by keeping materials, buildings, and factories in productive use for as long as possible and optimising the use of raw materials and energy to create customer, commercial, and societal value. www.lt.fi/en/company

Connected Inventions is a subsidiary of Connected Finland, that designs Internet of Things (IoT) smart building solution. connectedinventions.com/

Customer

Technopolis is a shared workspace expert, delivering efficient, flexible, inclusive offices and business services including workspace design, reception management, meeting rooms, restaurant alignment, and cleaning solutions. technopolisglobal.com/

Hong Kong International Terminals optimises data centre operations with an IoT-enabled indoor air quality monitoring solution connected to the 0G Network

The Challenge

Hongkong International Terminals Limited (HIT) needed a solution to monitor remotely temperature and humidity in its data centres across nine different terminals at the Port of Hong Kong.

The Solution

HIT chose IoTree to deploy an IoT-enabled solution to remotely monitor the indoor air quality across its data centres at the port. Sensors monitor temperature and humidity and share that information to a centralised web portal, via the Thinxtra 0G Network, to improve decision-making

The Results

IoTree's solution to remotely monitor indoor air quality in its data centres let HIT achieve:

- **24x7 monitoring** of temperature and humidity levels
- fast issues **identification** and **correction**
- **proactive** maintenance
- **independence** from manual monitoring processes

Network Operator

Thinxtra, The IoT Telco, is the exclusive Sigfox 0G Network Operator for Australia, New Zealand, Hong Kong, and Macau and the sole distributor of Soracom cellular IoT services.
www.thinxtra.com

Solution Partner

IoTree is a Hong Kong-based IT company that specialises in integrated Smart City IoT solutions and services that redefine how businesses operate.
www.iotree.hk

Customer

Hongkong International Terminals Limited (HIT) is one of several key container port operators in the Port of Hong Kong owned by Hutchison Port Holdings, the largest port operator globally.
www.hit.com.hk

The Loreto College Foxrock takes control and improves classroom safety and comfort with IoT-enabled indoor air quality monitoring solution

The Challenge

Loreto College Foxrock needed a solution to monitor indoor air quality to ensure the comfort, safety, and productivity of students and staff as part of its COVID-safe return to classroom-based learning.

The Solution

Loreto College chose solution provider ZiggyAir to deploy an IoT-enabled indoor air quality monitoring solution for its campus. The easy-to-install solution connects monitoring devices to an application which displays a "traffic light" system to indicate when increased classroom ventilation is necessary.

The Results

Since deploying the solution the college has easy, instant access to the data it needs to gain control and create a more COVID-safe environment for students and teachers, including:

- Improved wellness
- Reduced absenteeism
- Increased productivity and learning

0G Network Operator

Connected Finland

Connected Finland, Sigfox 0G Network Operator, enables millions of smart devices to connect to the IoT, with the most energy and cost efficient connectivity and device solutions.
www.connectedfinland.fi

Solution Partner

Ziggy air

ZiggyAir is a leading provider of indoor air quality and energy monitoring solutions.
www.ziggytec.com

Customer

LORETO COLLEGE FOXROCK

Loreto College Foxrock is an independent Catholic secondary school for girls in Dublin, Ireland, run by the sisters of the Institute of the Blessed Virgin Mary.
loretofoxrock.ie

Case Study

The HK Construction Industry Council protects student wellbeing with an IoTree IoT-enabled indoor air quality monitoring solution connected to the Thinxtra 0G Network

The Challenge

Hong Kong's Construction Industry Council (CIC) needed a reliable solution to assure student safety at its construction training campus by managing ventilation and temperature levels.

The Solution

CIC selected IoTree to develop a solution to remotely monitor indoor air quality levels using sensors to detect temperature, humidity, total volatile organic compounds (TVOC), and fine particulate matter (PM2.5) levels. The sensors alert building managers to act when unsafe levels are reached via the Thinxtra 0G Network.

The Results

IoTree's IoT-enabled indoor air quality monitoring solution helps the CIC assure student wellbeing and comfort with:

- always-on monitoring
- an alert system to address issues quickly
- maintaining optimal indoor climate conditions

0G Network Operator

Thinxtra, The IoT Telco, is the exclusive Sigfox 0G Network Operator for Australia, New Zealand, Hong Kong, and Macau and the sole distributor of Soracom cellular IoT services.
www.thinxtra.com

Solution Partner

IoTree is a Hong Kong-based IT company that specialises in integrated Smart City IoT solutions and services that redefine how businesses operate.
www.iotree.hk

Customer

Hong Kong's Construction Industry Council (CIC) strives for industry educatiovn, unity and excellence by serving as a communication channel for the Government and training members of the construction industry.
www.cic.hk

Contact us

Drive Sustainability Forward and Smart Washroom Certified Green Building Products

A comprehensive range of 9 sensors for Indoor Air Quality and Smart Washroom Management. These devices have been certified with a prestigious Very Good (2-tick rating) by Singapore Green Building Products' Smart Sensor category, under the guidance of The Singapore Green Building Council.

The sensors will allow the ability to achieve 5-star Happy Toilet rating by fulfilling the Detect & Feedback requirements set by the Restroom Association of Singapore.