

# Digital Solutions, Including IAQ, Water, and Energy Monitoring Drive LEED Certification Success

Wireless IAQ Solution

Location: Singapore

Applications

Smart Building, Facility Management, Indoor Air Quality Monitoring

Number of Devices Deployed

AM319 \* 13+UG65 \* 12+UG63\*1

Milesight Partner

UnaBiz

## Background

Obtaining a green certificate for a building is crucial in showcasing its eco-friendly credentials. However, the process can be challenging, often requiring significant time and effort. To streamline the process, the installation of certified products can be highly beneficial. A prime example is LEED certification, a globally recognized symbol of sustainability, backed by an entire network of organizations and individuals driving market transformation.

StorHub Self Storage is a leading self-storage provider in Asia Pacific managing facilities spanning over 6.8 million square feet of GFA with more than 70,000 storage units across key markets in Australia, Greater China, Japan, Malaysia, Singapore, Thailand and Korea. Together with UnaBiz, a trusted partner of Milesight, and GreenA Consultants, StorHub has implemented energy-efficient practices and integrated digital technologies, to optimize both utility and environmental performance across its properties. StorHub is committed to enhancing the sustainability performance of its self-storage facilities throughout Asia Pacific. Through this project, five of their facilities have earned LEED Gold certification, while two others have achieved LEED Silver certification.



## Challenges



### Data Insufficiency

Insufficient data points for capturing the detailed and real-time environmental and utility data required for certification.



### Operations Disruption

StorHub needed a solution that could seamlessly gather and transmit data from various sensors across its facilities without major disruption to operations or costly infrastructure upgrades.

## Solution



By leveraging on Milesight, UnaBiz, and GreenA Consultant's expertise in digitalisation and IoT, the trio created a connected ecosystem that collects precise electrical and water consumption data via other devices, and IAQ metrics via Milesight's LoRaWAN Certified 9-in-1 IAQ sensors across all StorHub's 18 properties in Singapore. Through a wireless retrofit solution, the project was completed in 2 phases, with quick installation turnaround time and no costly infrastructure overhaul. The utility consumption data and environmental data required for LEED certification is then seamlessly fed into a sustainability reporting tool.



### • AM319 9-in-1 IAQ Sensor

Milesight's AM319 allows the real-time and accurate detection of indoor air quality, including temperature and humidity, CO2 concentration, light, TVOC, HCHO/O3 level, barometric pressure, PM2.5, PM10 and motion, fulfilling stringent the requirements of green building standards. By providing comprehensive and precise data on these critical parameters, the AM319 enhances facility management by enabling proactive maintenance, ensuring a healthier indoor environment. This, in turn, contributes to increased occupant comfort and productivity, reduced energy consumption, and compliance with environmental regulations, making it an invaluable tool for modern green buildings.

### • LoRaWAN® Gateways

Milesight's UG65 Semi-industrial LoRaWAN® Gateways were installed for secured and reliable data transmission to cloud for data processing. Along with its high compatibility with network servers and backhaul connections enables StorHub to install them instantly without costly infrastructure overhaul. UG63 Mini LoRaWAN® Gateway was also installed in StorHub for blind spot coverage, ensuring wide area coverage.

## Results

### Improved Tracking and Reporting Efficiency

Milesight's AM319 provides real-time, accurate data for in-time actions, ensuring occupant comfort at all times, which is essential for measuring progress and achieve certification.

### Stringent Green Building Standards Compliance

With AM319's ability in providing real-time and accurate indoor air quality data, it fulfills the stringent requirements green building standards, facilitating the certification process.

### Enhanced Environmental Sustainability

The overall project facilitates the integration ESG principles by installing indoor air quality sensors, AM319, which enable the structuring of sustainability efforts and the collection of reliable and accurate data for compliance with reporting standards like LEED to facilitate audits and certifications. StorHub also implemented energy-saving strategies, focused on minimizing energy emissions, conserving water, waste reduction, and incorporated innovative features like rooftop gardens, hydroponics, and community engagement initiatives.

## Why Choose Milesight

Milesight's 9-in-1 IAQ sensor is very comprehensive and can detect multiple environmental parameters.



### About UnaBiz

UnaBiz is a global Massive IoT data service provider and integrator that specialises in solution design, manufacturing, connectivity and data platform services across a hybrid of low-power wide-area (LPWA) technologies such as Sigfox 0G, LTE-M, NB-IoT and LoRaWAN®, to power sustainable business growth. Founded in 2016, the company is headquartered in Singapore, with R&D centres in Taipei and Labège (FR), and sales offices in Tokyo, Paris, Madrid and Holland.

UnaBiz owns the Sigfox 0G technology which powers the largest LPWA network in the world that connects close to 14 million sensors for 1500 B2B customers in collaboration with 70+ national 0G Operators and their global strategic partners. The company focuses on Utilities, Supply Chain & Logistics, Security and Facilities & Building Management.

UnaBiz envisions a closely connected world powered by simple technology because it believes in "Less is More". By uniting people and IoT technology, it aims to create an impact on a massive scale, to help every person and every organization on the planet live smarter, simpler, and more sustainable way.