

# Wireless Facility Monitoring Solution

Smart Property

Smart Retail

The Wireless Facility Monitoring Solution monitors various environmental parameters wirelessly and reports in real-time, saving manpower for patrol and monitoring while enabling timely maintenance. With performance and maintenance data recorded and analyzed, Building Management Offices (BMO) can come up with accurate prediction and formulate their own maintenance plan and budget. It also minimizes facility downtime and improves the lifespan, ultimately enhancing the service level and saving BMO's pocket.



| Device name                                                                               | Sensor info                                                                                     | Last reported       | Readings                                              |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------|
| 2334 PIR<br># 0000310<br>Causeway Bay ▶ McDonald's Building<br>G/F ▶ Shop A&F<br>● Active | Motion sensor<br># 898520350000012334F<br>866269030926236<br>SHIO ▶ EDGE LITE<br>Battery pack   | 2020-04-06 18:30:52 | 19.8 °C<br>66 %<br>Motion detected<br>4.063 V<br>80 % |
| 2369 ECO<br># 0000309<br>Causeway Bay ▶ McDonald's Building<br>G/F ▶ Shop A&F<br>● Active | Air quality sensor<br># 898520350000012359F<br>866269030925865<br>SHIO ▶ EDGE ECO<br>AC adaptor | 2020-04-06 20:15:49 | 20.1 °C<br>62 %<br>--<br>--<br>--                     |

## Benefits

- Minimize loss by detecting problems at early stage, such as water leakage, high temperature, low light, smells, door opened/closed, etc.
- Enable predictive maintenance by recording and analyzing system and facilities' performance and operation data, reduce maintenance cost and improve facility lifespan
- Enable quantitative KPIs for service level assurance
- Low implementation cost with battery-operated and wireless devices
- Low operation cost by eliminating manual tracking and records

## Key Features

- Remotely monitor various environmental parameters in real-time for service level assurance: temperature, humidity, water leakage, power consumption, door sensing, air quality, smoke, smell, etc.
- NB-IoT connectivity provides better coverage even at basement or inner part of buildings
- Wireless sensors can operate with either battery or AC power
- Single dashboard for all sensor data including analysis and history
- Alerts of multiple channels (SMS, email, mobile app) to alert operation team of abnormal readings
- Workflow function for job assignment, updates and completion of checking or fixing problems

## Why 3Business



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## Technical Specifications

| Hardware                                     |                                                                                                                                                                                                                                                                                                                                          | Cloud Portal                                                                                                                                    |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 3-in-1 Temperature, Humidity, Water Flooding | <ul style="list-style-type: none"> <li>Operational Temperature Range: -20°C to 75°C</li> <li>Operational Humidity: 0-100%</li> <li>Water Flooding Sensing</li> <li>AC powered</li> </ul>                                                                                                                                                 | <ul style="list-style-type: none"> <li>Sensor data</li> <li>Report</li> <li>Self-defined alerts</li> <li>6-month sensor data storage</li> </ul> |
| External Temperature Probe                   | <ul style="list-style-type: none"> <li>Operational Temperature Range: -20°C to 80°C</li> <li>Operational Humidity: 0-100%</li> <li>Built-in battery for 240 days operation*</li> </ul>                                                                                                                                                   |                                                                                                                                                 |
| Door Sensing                                 | <ul style="list-style-type: none"> <li>Door Status: Open/Close</li> <li>Built-in Battery for 24 months operation*</li> </ul>                                                                                                                                                                                                             |                                                                                                                                                 |
| Gate Sensing                                 | <ul style="list-style-type: none"> <li>Gate Status: Open/Close</li> <li>Built-in Battery for 24 months operation*</li> </ul>                                                                                                                                                                                                             |                                                                                                                                                 |
| Air Quality Sensor                           | <ul style="list-style-type: none"> <li>Operational Temperature Range: -20°C to 75°C</li> <li>Operational Humidity: 0-100%</li> <li>CO<sub>2</sub> : 400-3000 ppm</li> <li>VOC : 0-1000 ppb</li> <li>HCHO : 0-2000 µg/m<sup>3</sup></li> <li>AC powered</li> </ul>                                                                        |                                                                                                                                                 |
| Smell Sensor                                 | <ul style="list-style-type: none"> <li>Operational Temperature Range: -20°C to 75°C</li> <li>Operational Humidity: 0-100%</li> <li>CO<sub>2</sub> : 400-3000 ppm</li> <li>VOC : 0-1000 ppb</li> <li>HCHO : 0-2000 µg/m<sup>3</sup></li> <li>H<sub>2</sub>S : 0.1-3 ppm</li> <li>NH<sub>3</sub> : 1-30 ppm</li> <li>AC powered</li> </ul> |                                                                                                                                                 |
| Smoke Only Sensing                           | <ul style="list-style-type: none"> <li>Smoke Sensing</li> <li>12V DC powered</li> </ul>                                                                                                                                                                                                                                                  |                                                                                                                                                 |
| PIR Motion Sensor                            | <ul style="list-style-type: none"> <li>Motion Detection</li> <li>Replaceable Model 1260 Battery</li> </ul>                                                                                                                                                                                                                               |                                                                                                                                                 |

\* Subject to the frequency of data collection



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