**MicroSec**

What they offer?

* Protection Suite
  + MicroSec provides MicroSDK (PKI), a toolkit that can add to IoT device software. It is an agent holding a **unique micro certificate** on every device, allowing mutual authentication with the server, **dynamically generating key**. Key ares not stored, changing every session. If a device is hacked, **removed the micro certificate** which allow the attack to be **isolated**.
  + Suitable for IoT communication protocol operating on OT system such as **BACnet, Modbus, NB-IoT, LoRaWAN, LPWAN, Zigbee, BLE**, etc.
  + Isolate attacks and provide updates when the devices is either **online or offline.**
  + Ensure any changes or updates to your IIoT or IoT devices are done safely by **requiring the digital sign of the user**.
* Monitoring Suite
  + Configured based on type of IP or non-IP protocols, stop popular IoT attacks such as **DDoS / DoS, Tamper, Jamming, MiTM**, and other.
  + Micro-IDS machine learning models **fingerprints each device's unique behavior.** Anydeviations will **triggers an automatic response**.
  + Micro-IDS automatically detects, maps and visualizes devices across your network and creates an interactive **Purdue model** (ISA 95), managing with a complete view of IoT and IIoT network.

![Table

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**UnaBiz**

**(Sigfox is not available in Indonesia)**

***Sensors***

All sensors have same features such as:

* **Connectivity:** Sigfox RC1, RC2, RC3 and RC4
* **Operating Temperature:** -20°C to 70°C
* **Weight & Dimensions:** 33g / 89 (L) x 32 (W) x 22 (H) mm
* **Batteries:** 1.5V AAA x2 (up to 10K messages)

|  |  |  |
| --- | --- | --- |
| **Sensors** | **Operation Modes** | **Application** |
| UnaSense | * **Event:** Detect temp and humid anomalies with pre-configured threshold * **Time:** Send temp and humid data in regular interval * **Range & Accuracy**    + Temp: -20°C to 70°C with +/- 1°C accuracy   + Humid: 0 to 100% %RH with +/- 2%RH accuracy | * IT equipment, F&B and pharmaceuticals monitoring * Preserve quality of stocks |
| UnaBell | * **Event:** Detect short and long presses * **Time:** Count number of short/long press over a period of time * **3 types of press / LED colours**   + Short press- Green   + Long press – Orange   + Configuration press – Red | * Request maintenance * Act as emergency call, panic button or maintenance request or security alert |
| UnaMotion | * **Event:** Detect human movement * **Time:** Count number of human movements over a period of time * **Detection Parameters**   + Distance: Up to 10m   + Viewing angle: 120°, 40° (optional) | * Detect crowd in large spaces * Remotely detect elderly activities * Monitor desk occupancy in offices |
| UnaProtect | * **Event:** Capture reed switch on/off change * **Time:** Count read switch change over a period of time * **Magnetic signal detection**   + Read switch open or close signal   + Operating distance with magnet: 10mm | * Warehouse intrusion * Detect windows left opened * Cold storoge facility: door left opened |
| UnaBeacon | * **Event:** Detect device movement * **Time:** Count device movement over a period of time * **Sigfox Atlas Geo-Location Service**   + Track accuracy > 500m | * Track movement of assets * Remotely detect elderly activities * Geolocate assets in large outdoor area |

***Use Cases***

* Gas Metering
  + Space Hotaru
  + Reads gas data hourly and sends a report to client daily
  + Dimensions: 131 x 76 x 62 mm
  + Replaceable 3.6V lithium battery (3-4 years with 60 mins reporting interval)
  + Installation under 10 mins and does not affect meter operation
* Water Metering
  + UnaMIU
  + Sending accurate water consumption information of households
  + Identify water leakage
* Power Metering
  + UnaReader
  + Monitor power consumption daily instead of monthly
  + Supports Modbus / ASCII, RTU protocol, and digital IO
  + With customisable software and the Sigfox transmission, it enables functions such as the surge protection for RS-485 and power line, with a power shutdown alarm.
* Asset Tracking

![Diagram

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***UnaConnect***

* Simplify device management by providing ready-to-use add-on features that are specific to different use cases
* Seamlessly integrates diverse device types regardless of network protocols
* Ensures data integrity with the entire process is ISO/IEC 27001:2013 certified.
* Manage an unlimited number of devices and configure them at a group level.