香港寬頻 | 企業方案 Enterprise Solutions

HONG KONG BROADBAND NETWORK

Internet of Things (IoT) Service

User Guide

(Version 1.0)

Table of Contents

Internet of Things (IoT) guideline

1. Summary

This guideline provides basic information and instruction for using

- Internet of Things (IoT) Portal
- Internet of Things (IoT) Sensors
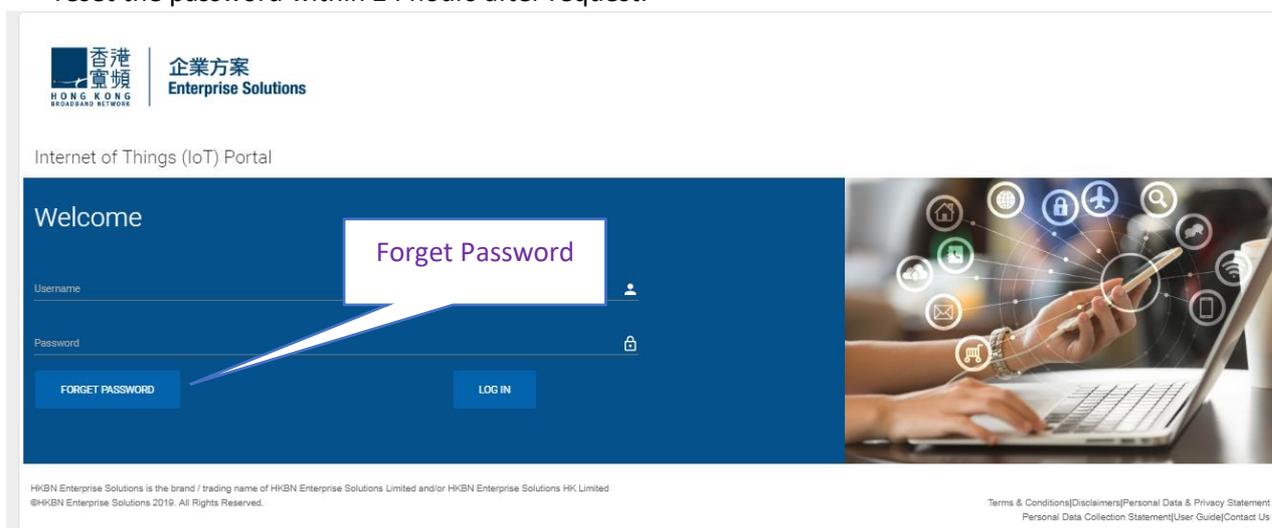
2. Internet of Things (IoT) Portal

This section provides basic guideline on login the platform, view the sensor status & setup the email notification.

2.1. Login

- Login to the platform: http://iot.hkbnes.net/

2.2. Forget Password

- Reset Password email will be sent to your registered "Forget Password Email", user is required to reset the password within 24 hours after request.

Main dashboard

- After login, main dashboard is displaying the latest sensor status
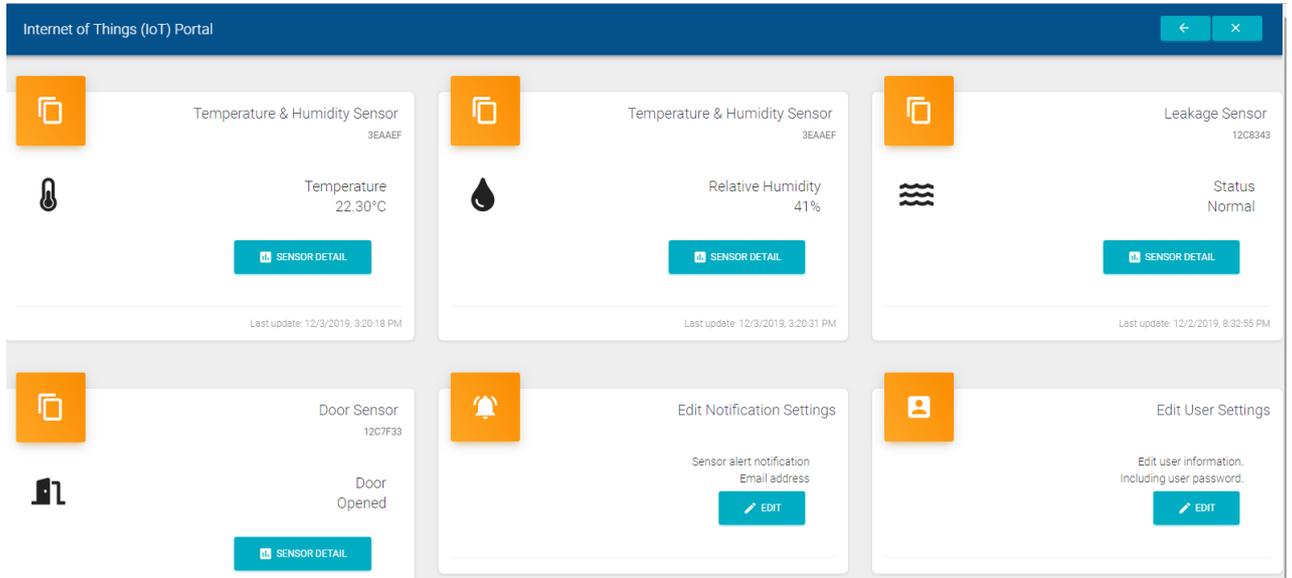
- "Go Back" and "Logout" button are on the top right corner.

2.3. Sensor Detail

- User can review sensor data, edit sensor description, location, alert event, alert schedule and notification methods in this section.
- Sensor history. User can easily check the different history duration

- Sensor history raw data can be downloaded by clicking "Download Sensor Data".
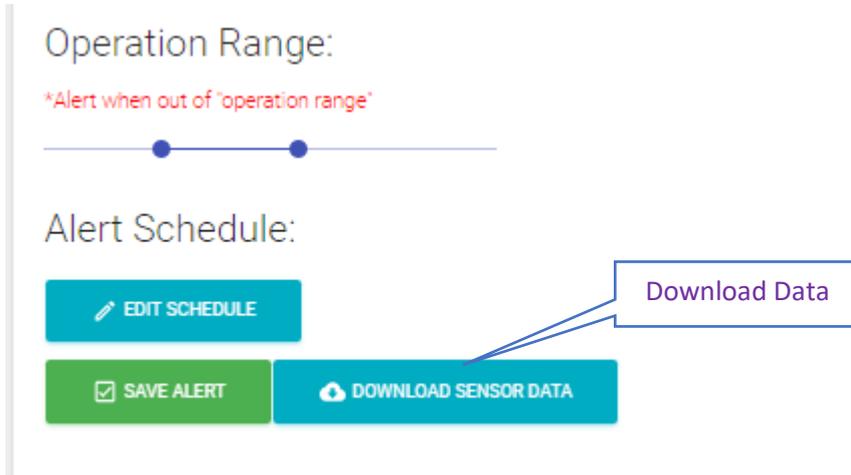
- Data will be downloaded in csv. file.

- Sensor name, description and location can be set to easily identify the sensor. Such information will be used in the notification email.

Sensor Detail

	Temperature 22.30°C
Updated at	12/3/2019, 3:20:18 PM
Name	Temperature & Humidity Sensor
Description	warehouse temperature
Location	3/F Room 8

☑ SAVE DEVICE DETAIL

Sensor Description & Location

- Sensor notification can be enabled for specific events & specific schedule. The alert threshold can be configured as follows.

Operation Range:

*Alert when out of "operation range"

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Alert Schedule:

✏ EDIT SCHEDULE

☑ SAVE ALERT   ☁ DOWNLOAD SENSOR DATA

Alert event

Enable notification

Alert schedule

Notification Types:

☐ Enable E-mail Notification

Edit Notification Setting

- Alert schedule can be set by selected every Sunday to Saturday and by every hour.
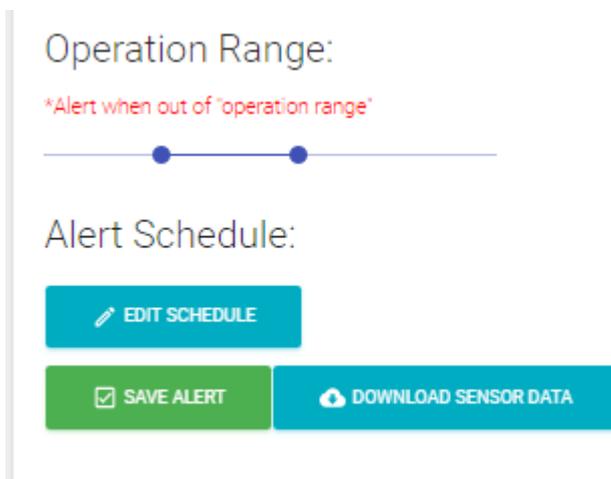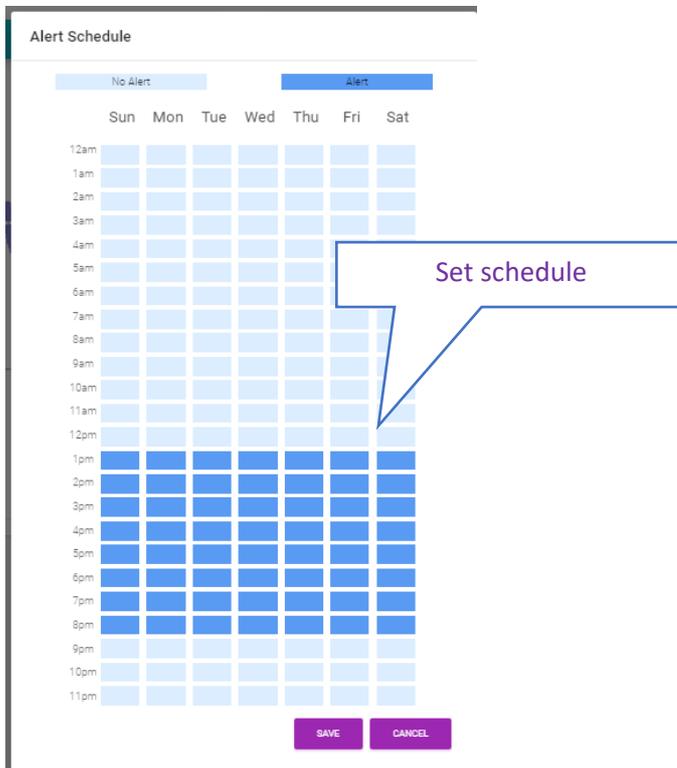
- Dashboard turns blue (above) or red (below) when the threshold is out of the operation range.

Current temperature → Temperature 22.30°C

Operation Range: Operation Range

*Alert when out of "op 24 on range"

Current humidity → Relative Humidity 63%

Operation Range: Operation Range

*Alert when out of "op 48 on range"
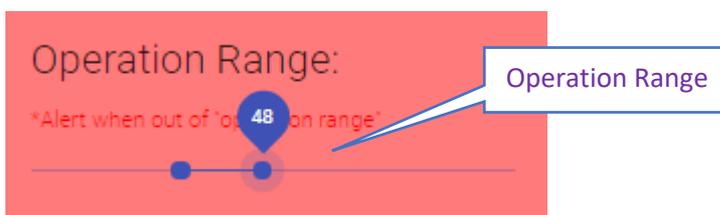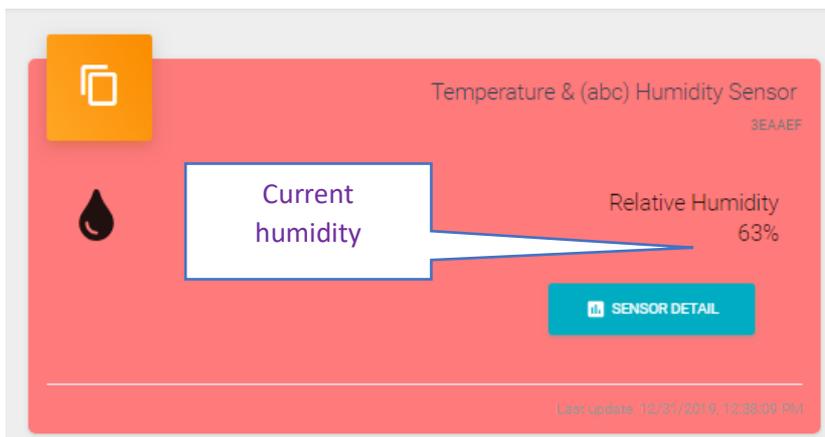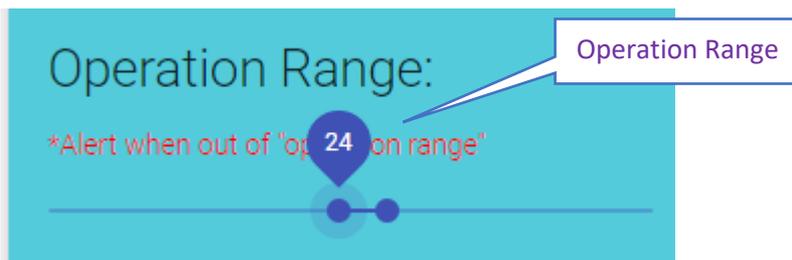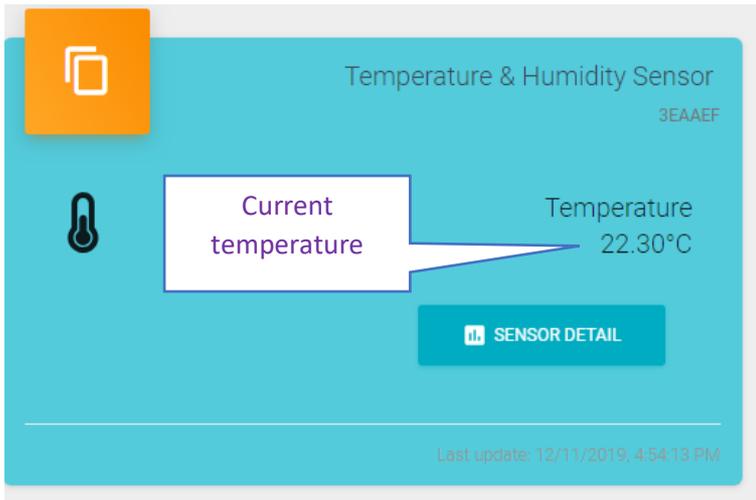
2.4. Edit Notification Settings

- User can configure the email address to receive notification (up to 10 email address) for sensor events, e.g. water leakage detected, temperature over threshold…
- User is required to white list the email address <do-not-reply@iot-hkbnes.net> in order to receive the email alert.

Edit Notification Settings

Sensor alert notification
Email address

✎ EDIT

✉

E-Mail Notification

Email	Add/Del
New E-Mail	➕

Remark: Please white list the email address "do-not-reply@iot-hkbnes.net" in order to receive the email alert.
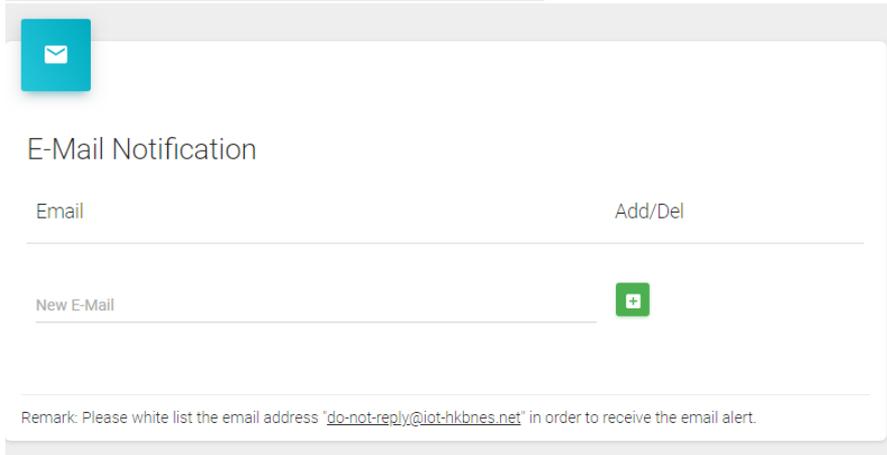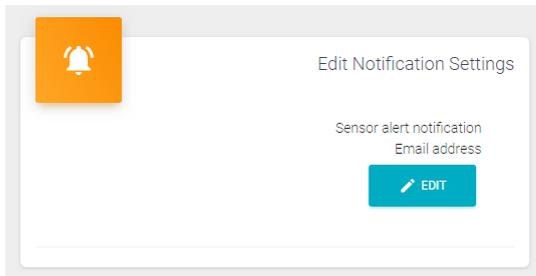
2.5. Edit User Settings

- User setting can be change by clicking "Edit User Settings" and then "Save Detail"
- For security reason, you are recommended to change your login password regularly.

Edit User Settings

Edit user information.
Including user password.
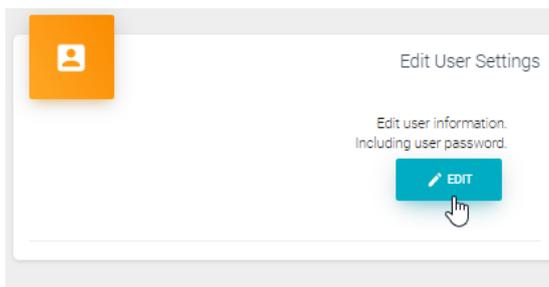
✎ EDIT

Edit User Detail

Account No.   ████████████

First Name   ████████████

Last Name   ████████████

User Name   ████████████

Password reset Email ████████████████

Password   Enter if you want to change password

Confirm Password   Confirm your new password

☑ SAVE DETAIL

3. Sensor Information

3.1. Leakage Sensor

- Device name: SimpleLeak
- Brand: SimpleHW from Czech Republic
- Instruction:

Installation

Place the device to the area you would like to monitor.

Operation & Alerting

1. When water leakage or overturn detected, sensor sends alert if the problem is not fixed after 10 sec.
2. Sensor sends alert again every 10 minutes for 5 times if the problem is not fixed.
3. Sensor sends event in case of end of leakage or overturn.
4. Sensor sends heartbeat event every 24 hours.

Battery Life

Around 10 years

3.2. Door Sensor
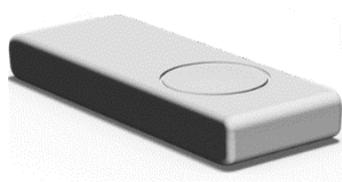
simplePack Plus

- Device name: SimplePack Plus
- Brand: SimpleHW from Czech Republic
- Instruction:

Installation

1. Mount the device to door / window
2. Stick the provided magnet next to the device right hand side as picture below

3. The distance between the magnet & device is within 10mm

Operation & Alerting

Sensor reports status when
- Door / window opens
- Door / window closes
- Sensor sends heartbeat event every 24 hours.

Battery Life

Around 10 years

3.3. Temperature & Humidity Sensor

- Device name: Connected AirWits
- Brand: Connected Finland from Finland
- Instruction:

Installation	
Place the device to the area you would like to monitor.	
Operation & Alerting	
Sensor reports Temperature & Humidity every 15 minutes • Temperature range: -20 to 50°C • Humidity range: 0 to 95%	
Battery Life	
Around 5 years	

4. Alert Email Sample

4.1. Leakage Sensor

IO
Internet of Things <do-not-reply@iot-hkbnes.net>
Alert Notification – IoT Monitoring Service<Leakage Sensor>

Dear Customer,

An alert has been triggered for the device Leakage Sensor (████████)
Reason: Device overturned
Time: 2019-12-31 13:21:41
Description: washroom
Location: 1/F

Please do not reply to this email. Should you have any enquiries, please feel free to contact our Customer Services Hotline 128-180. Our customer services executive will be delighted to assist you.

Yours faithfully,

HKBN Enterprise Solutions Limited

(This is a computer-generated email and no signature is required.)

4.2. Door Sensor

IO
Internet of Things <do-not-reply@iot-hkbnes.net>
Alert Notification – IoT Monitoring Service<Door Sensor>

Dear Customer,

An alert has been triggered for the device Door Sensor (████████)
Reason: Door Closed
Time: 2019-12-31 13:14:29
Description: Back Door
Location: Mongkok Branch

Please do not reply to this email. Should you have any enquiries, please feel free to contact our Customer Services Hotline 128-180. Our customer services executive will be delighted to assist you.

Yours faithfully,

HKBN Enterprise Solutions Limited

(This is a computer-generated email and no signature is required.)

4.3. Temperature & Humidity Sensor

IO   Internet of Things <do-not-reply@iot-hkbnes.net>
Alert Notification – IoT Monitoring Service<Temperature & Humidity Sensor>

Dear Customer,

An alert has been triggered for the device Temperature & Humidity Sensor ( )
Reason: Measured temperature is 22.9°C which is lower than the threshold
Time: 2019-12-31 13:32:26
Description: warehouse
Location: warehouse room 1

Please do not reply to this email. Should you have any enquiries, please feel free to contact our Customer Services Hotline 128-180. Our customer services executive will be delighted to assist you.

Yours faithfully,

HKBN Enterprise Solutions Limited

(This is a computer-generated email and no signature is required.)

5. FAQ

Q1. What is Sigfox?

A1. Sigfox is a French global network operator founded in 2009 that builds wireless networks to connect low-power objects. Sigfox is an inexpensive, reliable, low-power solution to connect sensors and devices. In 2019, Sigfox network has been deployed in around 70 countries including Hong Kong, Taiwan, Singapore, Japan…

Q2. What is Thinxtra?

A2. Thinxtra is Sigfox network operator for Hong Kong with headquarter in Australia. Thinxtra is responsible for building-up and operating Sigfox network.

Q3. Is the Sigfox / IoT service approved by government?

A3. Thinxtra holds the "Wireless Internet of Things" licence under Office of the Communications Authority (OFCA) regulation. The equipment also obtained type approval from OFCA which is legal and safe to deploy in HK.

Q4. What is IoT (Internet of Things) device?

A4. IoT sensor is a device with different sensing capability, that typically collected environmental data and send wireless to the Internet. E.g. Temperature & humidity device, water leakage device, door status device, water meter reader, weather stations…

Q5. What information will be kept and used in IoT Portal?

A5. Account number, user name will be used for login verification purpose, while email address will be used for sending alert notification and reset password. Device data is stored for reporting purpose.

Q6. Is there any security issue?

A6. Device is secured by authentication with unique ID. Information and sensor data are stored securely in servers located in multiple locations. Data is only accessible by specific user after login.

Q7. How to set email alerts?

A7. Please tick "Enable E-mail Notification" box and save the alerting setting in specific sensor page and please remember there is/are email address in "Edit Notification Settings" page. Please make sure white list the email address <do-not-reply@iot-hkbnes.net> in order to receive the email alert.

Q8. Can I configure multiple email address to receive the alert message?

A8. Yes, multiple email can be added but please don't add more than 10 email address. Please go to "Edit Notification Settings" to add new email address.

Q9. How to stop email notification?

A9. It is possible to stop email notification for specific sensor. User can go to specific sensor page and uncheck the "Enable E-mail Notification" box and save the alerting setting.

Q10.   How long will the sensor data keep in the portal?

A10.   All data will be kept when the sensors are active, and it can be downloaded in csv format.

Q11.   How can I tell if the sensor is working if there's no event trigger (e.g. water leaks)?

A11.   For Door status and Water Leakage, even there's no incident trigger any alert notification, there will be a daily heartbeat signal send to the portal. For Temperature & Humidity sensor, data will be updated to portal every 15 minutes. You can go into the portal to see the status.

~END~