

Milesight



Milesight ToolBox

User Guide

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Chapter 1. About this Guide

This guide introduces the common features and steps for Milesight ToolBox App to work with Milesight devices.

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Milesight reserves the right to change this guide and the specifications without prior notice. The latest specifications and user documentation for all Milesight products are available on our official website <http://www.milesight.com>

Revision History

Release Date	Version	Revision Content
Apr. 30	V1.0	Initial version

Chapter 2. Introduction

Milesight ToolBox is a mobile management tool designed for Milesight devices. With an intuitive interface, users can easily perform local device configuration, firmware upgrades, device rebooting and resetting, as well as backup and restore operations via NFC or Bluetooth. Milesight ToolBox App supports a Batch Join feature, enabling users to add sensors to LoRaWAN gateways over Wi-Fi and simplifying the onboarding process. By streamlining device deployment and maintenance, Milesight ToolBox App greatly enhances the efficiency and convenience of IoT project implementation.

Chapter 3. Installation

System Operating Environment

iOS: iOS 15.1 or above.

Android: Android 6.0 or above.

Installation Guide

iOS: Download the app from the App Store and install it directly.

Android: Download the app from the Google Play or [Milesight website](#), and install it directly.

Chapter 4. Operations and Settings

Device Management

This chapter describes features related to device management.

Read and Write Device

Milesight ToolBox App can read the device data and write device configurations via NFC or Bluetooth. This chapter describes the basic steps to read and write a device.

Access a Device via NFC

Prerequisites

- The device supports NFC configuration.
- The device is supplied with power.
- The smartphone supports NFC, and the NFC detection area is known from the phone's guide.
- The Milesight ToolBox App is upgraded to a version that supports this device model.

Steps

1. Enable the NFC function on the smartphone.
2. Launch ToolBox.
 - a. Upon initial launch, the following page will appear. Select **NFC** and click **Enter**.

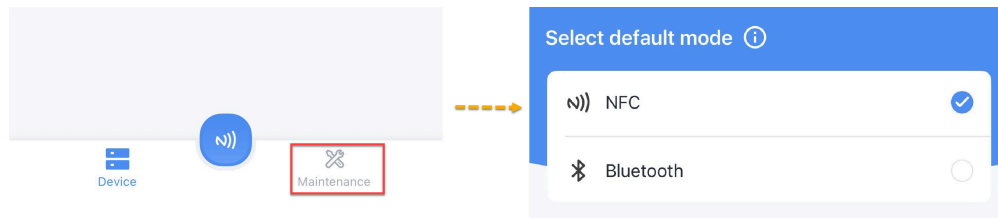
Select read method

Please select the default method to establish a connection with the device. This can be changed later through system settings.

N)) NFC	<input checked="" type="radio"/>
Bluetooth	<input type="radio"/>

Enter →

b. Upon subsequent launches, click **Maintenance** on the home page, and then select **NFC**.




3. (Optional) To locate the NFC detection areas of the phone and the device, click **Can't find the NFC location**.

4. Put the NFC detection area of the phone close to the NFC antenna of the device.



Tip:

It is recommended to remove the phone case.

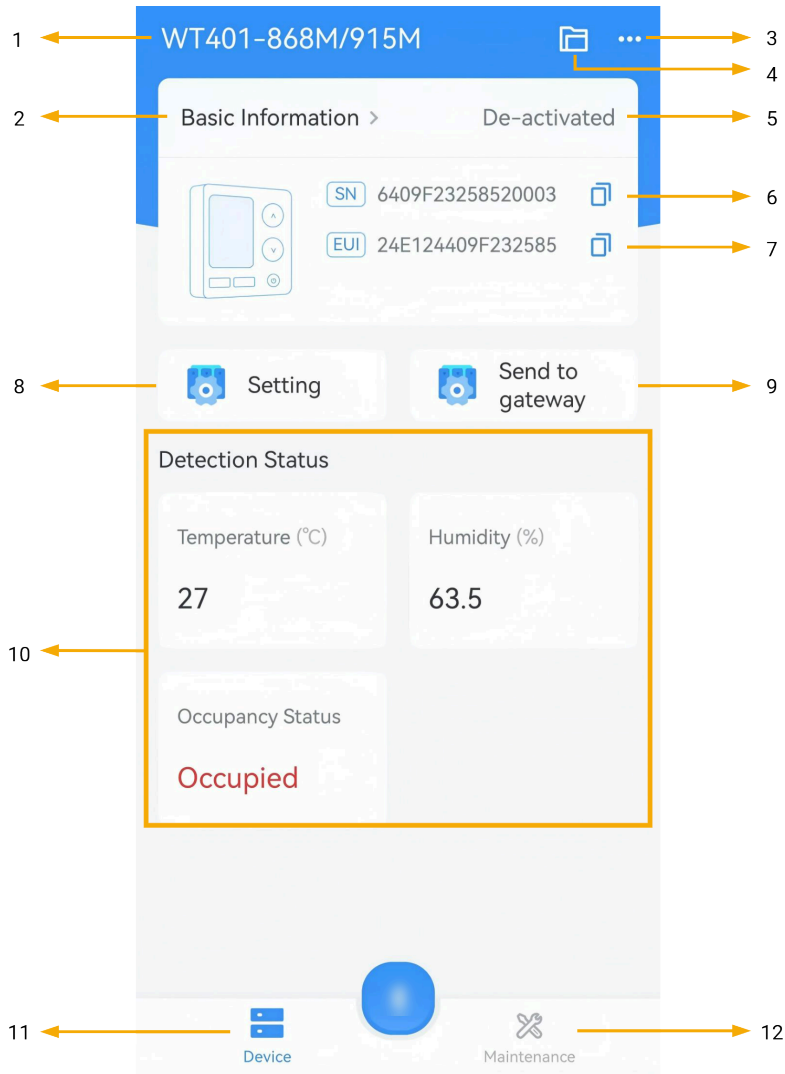
5. Click  to start reading.



Troubleshooting:

If read fails, move the phone away and reposition it close to the device to try again.

6. Once read successfully, the homepage is displayed as below.



Nr	Name	Description
1	Model Name	Display the full model name.
2	Basic Information	Check device basic information, sync time or power on/off.
3	More	Select language, check App version and update, check system permission, etc.
4	Template	Add, import, export or delete template files. For more details, refer to Backup and Restore the Device .
5	Network Status	Display the network connection status.
6	SN	Display the device serial number.

Nr	Name	Description
7	EUI	Display the device EUI. This is only applicable to LoRaWAN [®] devices.
8	Setting	Set the device and network parameters. For parameter details, refer to corresponding device guides.
9	Send to Gateway	Add this device to Milesight LoRaWAN [®] gateway, For more details, refer to Batch Join Devices to Gateway .
10	Detection Status	Display the collected sensor data or interface status. If the device is turned off, there will display a power button.
11	Device	Display the device information and configurations.
12	Maintenance	Select device reading mode, upgrade the device, restart or reset the device, export historical data, etc.

- Navigate to **Setting** page to configure the device, then click **Write** in the lower right corner.
- Put the NFC detection area of the phone close to the NFC antenna of the device.

**Tip:**

A device password is usually required for authentication when writing to the device. If using the app for the first time, it will automatically authenticate using the default password: **123456**. If the app-stored password does not match the device, a password prompt will pop-up.

- Once written successfully, the following page is displayed.



Write successfully!

Access a Device via Bluetooth

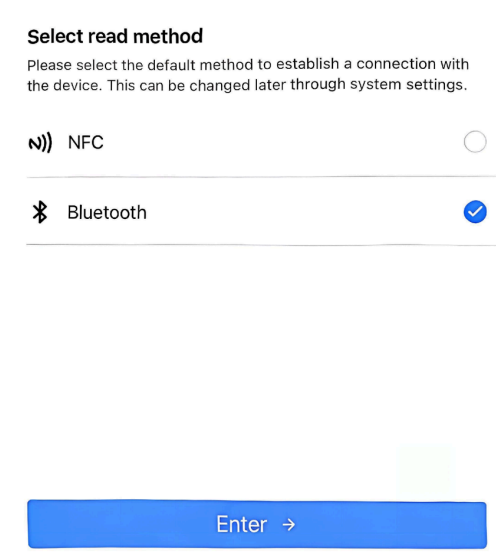
Prerequisites

- The device supports Bluetooth configuration.
- The device is turned on using hardware or software.
- The smartphone supports Bluetooth function.
- The Milesight ToolBox App is upgraded to a version that supports this device model.

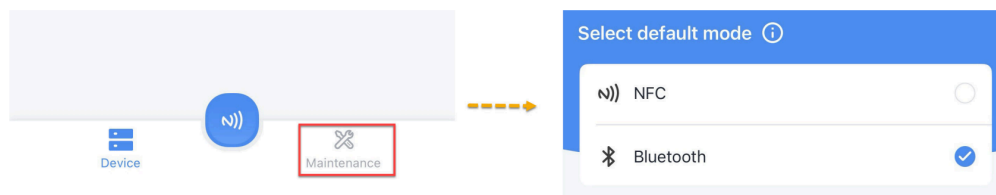
Steps


1. Enable the Bluetooth and location functions on the smart phone.
2. Launch ToolBox.

- a. Upon initial launch, the following page will appear. Select **Bluetooth** and click **Enter**.



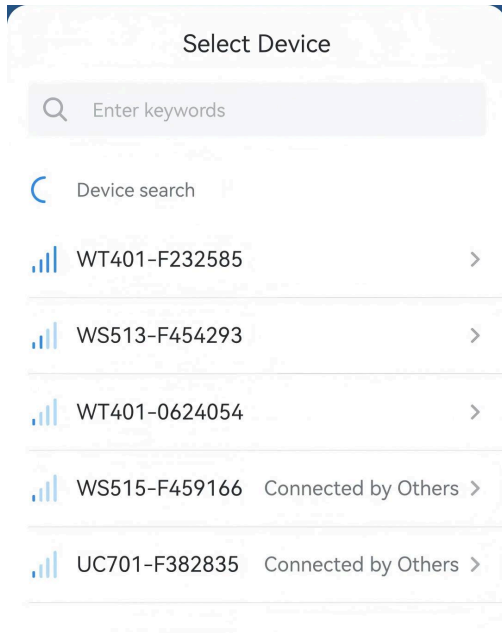
- b. Upon subsequent launches, click **Maintenance** on the home page, and then select **Bluetooth**.



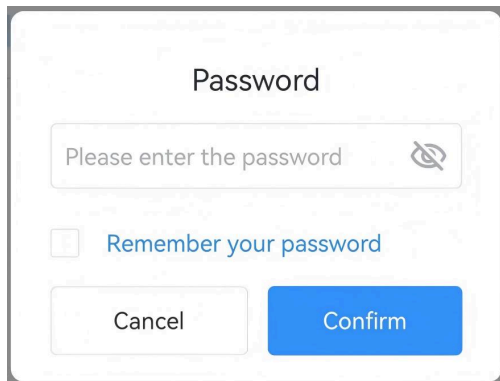
3. Click  to scan the devices around and select the target device to connect. The default device Bluetooth name is `model-xxxxxx` (5th to 11th characters of device SN).

**Tip:**

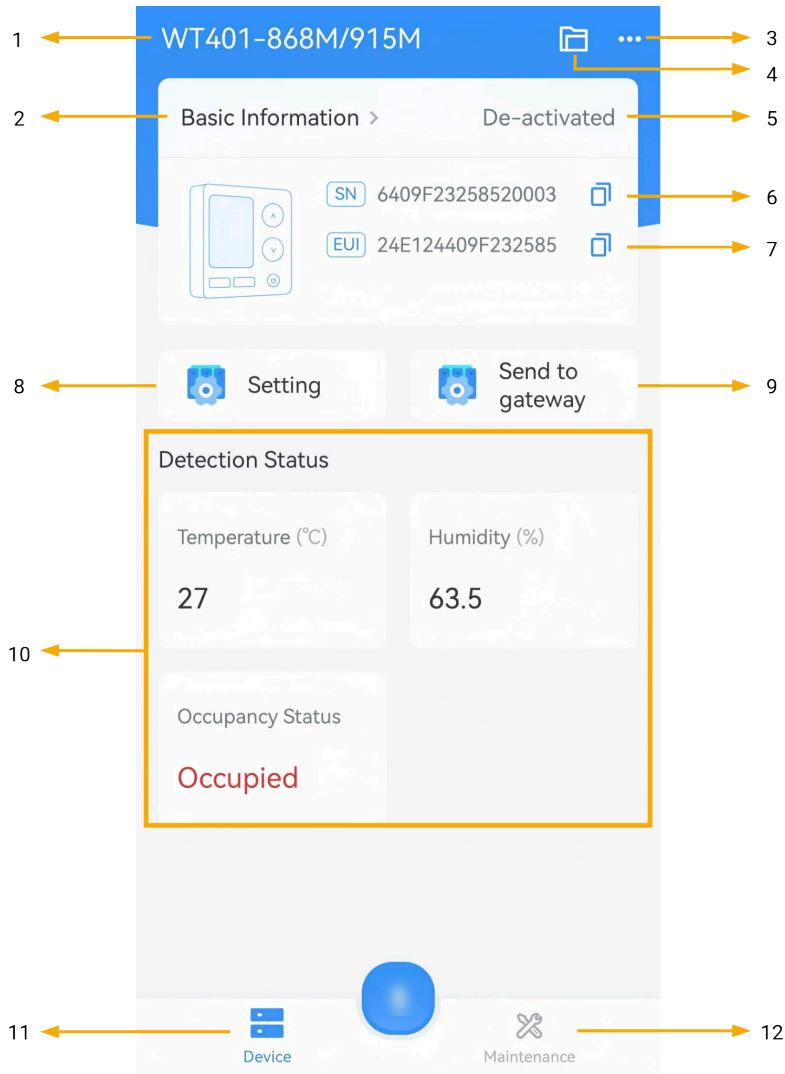
One device can only connect to one smartphone via Bluetooth. If you select a device already connected to another phone, it will disconnect the current connection and connect to your phone.



4. Enter the device password. The default password: **123456**.



5. Once connected successfully, the homepage is displayed as below.



Nr	Name	Description
1	Model Name	Display the full model name.
2	Basic Information	Check device basic information, sync time or power on/off.
3	More	Select language, check App version and update, check system permission, etc.
4	Template	Add, import, export or delete template files. For more details, refer to Backup and Restore the Device .
5	Network Status	Display the network connection status.
6	SN	Display the device serial number.

Nr	Name	Description
7	EUI	Display the device EUI. This is only applicable to LoRaWAN [®] devices.
8	Setting	Set the device and network parameters. For parameter details, refer to corresponding device guides.
9	Send to Gateway	Add this device to Milesight LoRaWAN [®] gateway, For more details, refer to Batch Join Devices to Gateway .
10	Detection Status	Display the collected sensor data or interface status. If the device is turned off, there will display a power button.
11	Device	Display the device information and configurations.
12	Maintenance	Select device reading mode, upgrade the device, restart or reset the device, export historical data, etc.

6. Navigate to **Setting** page to configure the device, then click **Write** in the lower right corner.
7. Once written successfully, the following page is displayed.



Write successfully!



Note:

The Bluetooth connection will be terminated if there's no data interaction within 3 minutes.

Backup and Restore the Device

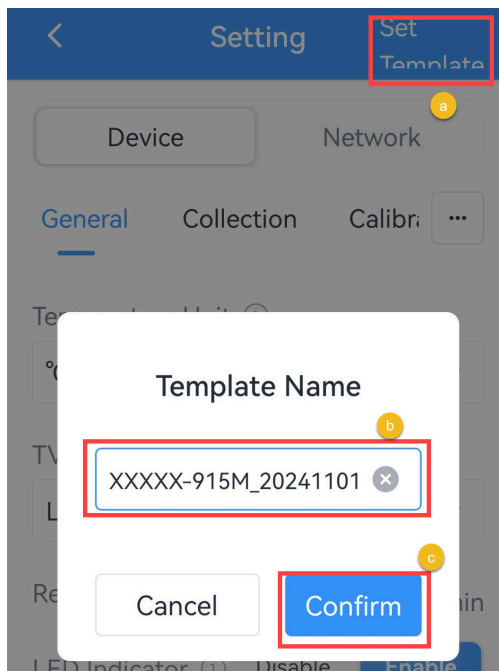
Milesight ToolBox App can back up the device configurations as template files and restore it to other devices for quick and easy configuration. This chapter describes how to backup the device configuration and write to other devices.

Prerequisites

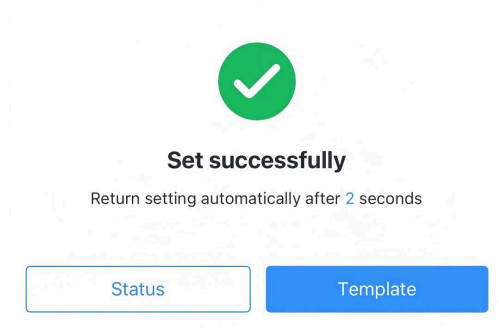
The backup device and the device importing the backup are exactly the same model.

Set a Template

1. Access a device referring to [Read and Write Device](#).
2. Click **Setting** button to go to the device configuration page.
3. Edit the device parameters as required, click **Set Template** in the top right corner.
4. Customize a template name, click **Confirm** to save the current configuration as a template.



5. If the save is successfully, the following page is displayed. The template will be saved to the ToolBox App.




Write Template Configuration to Target Device

1. On the homepage of ToolBox, click Template icon in the top right corner to go to **Template** page.



2. Click the target template name.

 **Note:**
Do not select the checkbox of the template.

Template Import

Enter keywords

2025/11

XXXXX-868M_20251106 ...
Last Modified Time: 2025-11-06 13:48:23

3. In the displayed page, click **Write** in the bottom to write the device.
4. Refer to [Read and Write Device](#) to connect and write the target device.
5. If the configuration is written to the target device, the following page is displayed.

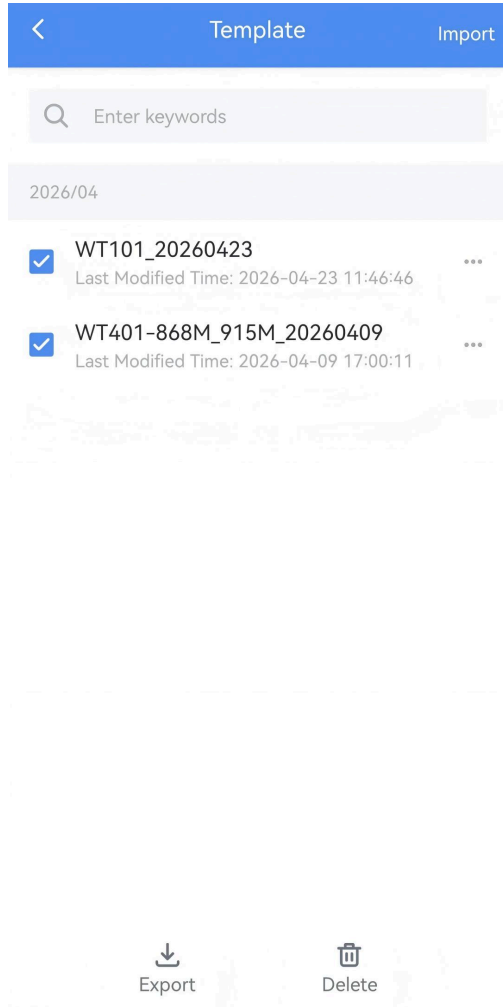


Write successfully!

Export or Delete a Template File

Export or Delete Templates in Bulk

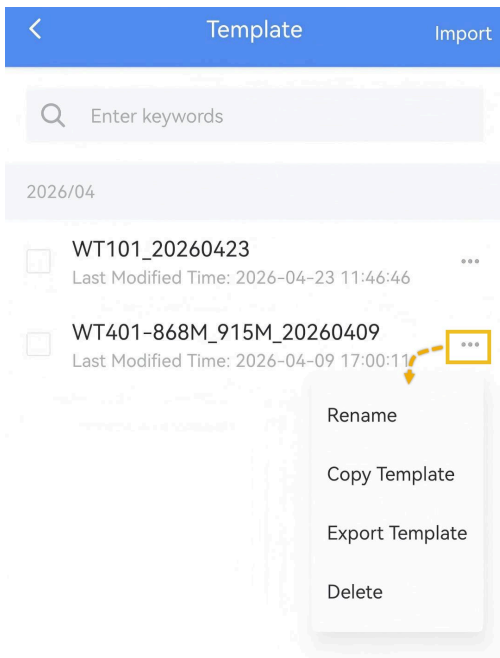
1. Select the checkbox of the target templates.
2. Click **Export** in the lower left corner to export these templates as JSON format files and save them to the smart phone.
3. Click **Delete** in the lower right corner, then click **Confirm** to delete these templates from ToolBox.



Export or Delete a Template

1. Click the three dots of the desired device.
2. Click **Export Template** to export this template as a JSON format file and save it to the smart phone.

3. Click **Delete**, then click **Confirm** to delete this template from ToolBox.



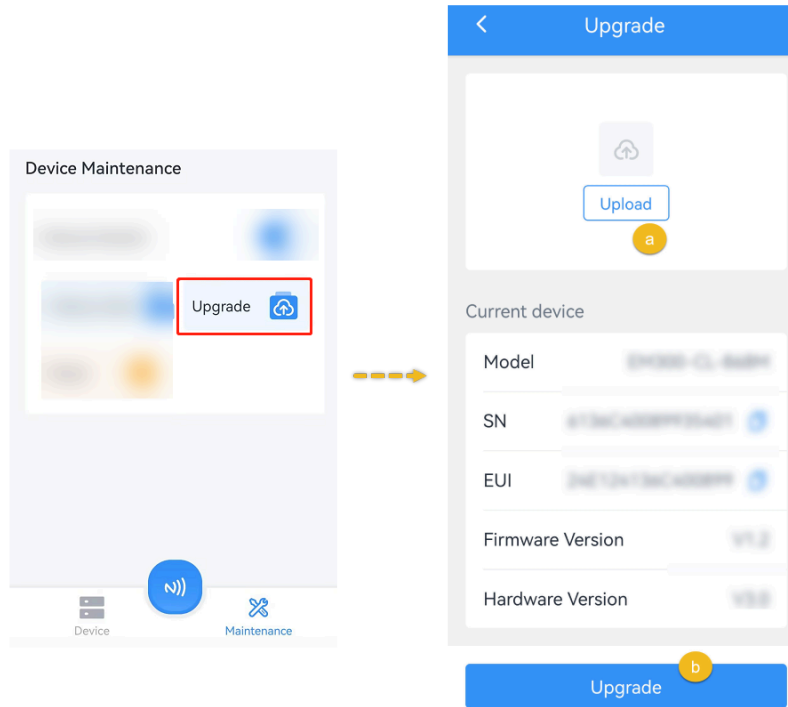
Upgrade the Device

Milesight ToolBox App can upgrade a device via NFC or Bluetooth. This chapter describes the basic steps to upgrade a device.

Prerequisites: Download firmware from [Milesight official website](#) and save it to the smart phone. It is recommended to consult technical support before upgrading to ensure a safe and successful upgrade.

Step

1. On the homepage of ToolBox, click **Maintenance** in the lower right corner.
2. Click **Upgrade** to go to **Upgrade** page.
3. Click **Upload** to select the firmware from the local path of the smartphone.
4. Click **Upgrade** to upgrade the device.



5. If the reading mode is NFC, put the NFC detection area of the phone close to the NFC antenna of device.
6. Wait several minutes until the upgrade completes successfully.



CAUTION:

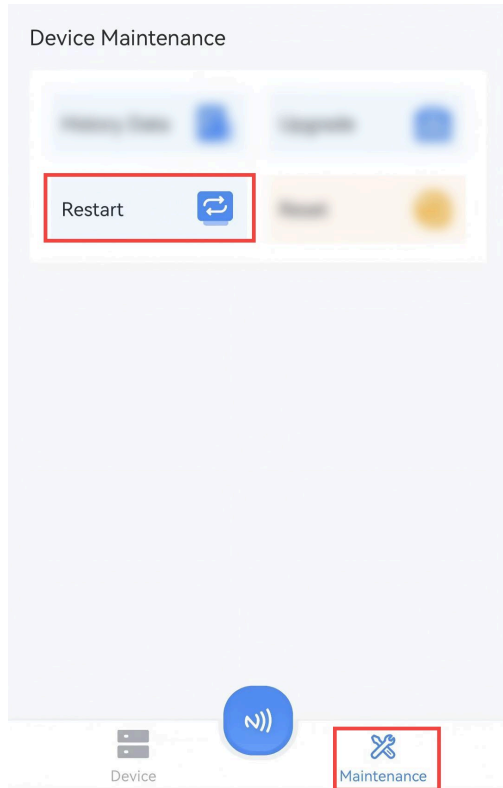
Do not perform any operations in ToolBox during upgrade, otherwise, the upgrade will be interrupted or the device may malfunction.

Restart or Reset the Device

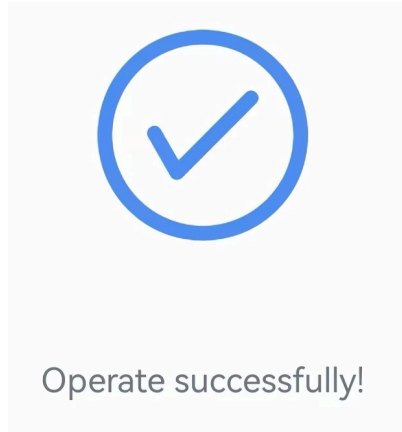
This section describes how to restart or reset the device.

Restart the Device

1. On the homepage of ToolBox, click **Maintenance** in the lower right corner.
2. Click **Restart**.

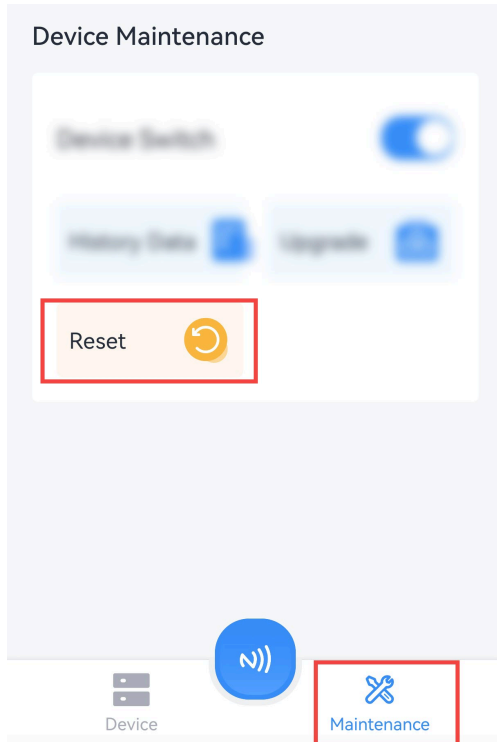


3. If the reading mode is NFC, put the NFC detection area of the phone close to the NFC antenna of device.
4. If the device is successfully restarted, the following page is displayed.



Reset the Device

1. On the homepage of ToolBox, click **Maintenance** in the lower right corner.
2. Click **Reset**.



3. In the displayed dialog box, click **Confirm**.
4. If the reading mode is NFC, put the NFC detection area of the phone close to the NFC antenna of device.
5. If the device is successfully reset, the following page is displayed.



Reset successfully!



Note:

If unable to read or write devices normally using the ToolBox, perform a hardware reset.

Batch Join Devices to Gateway

Introduction

Milesight ToolBox App supports Batch Join feature to simplify the process of adding devices to gateways. Users can quickly add Milesight devices (with parameters) to Milesight ToolBox App, then send them in bulk to a Milesight LoRaWAN[®] gateway with an embedded network server over Wi-Fi. Besides, the app can also receive the feedback from gateway to confirm the device network join status, greatly improving deployment and replacement efficiency.

Prerequisites

Gateway

- Supported model: UG56 with firmware v56.0.0.9 or later; UG65/UG67 with firmware v60.0.0.49 or later.
- WLAN is enabled and the work mode is **AP**.
- Embedded NS is enabled.

Device

- Milesight LoRaWAN[®] end devices.
- Supported Frequency setting is the same as the gateway.

ToolBox App

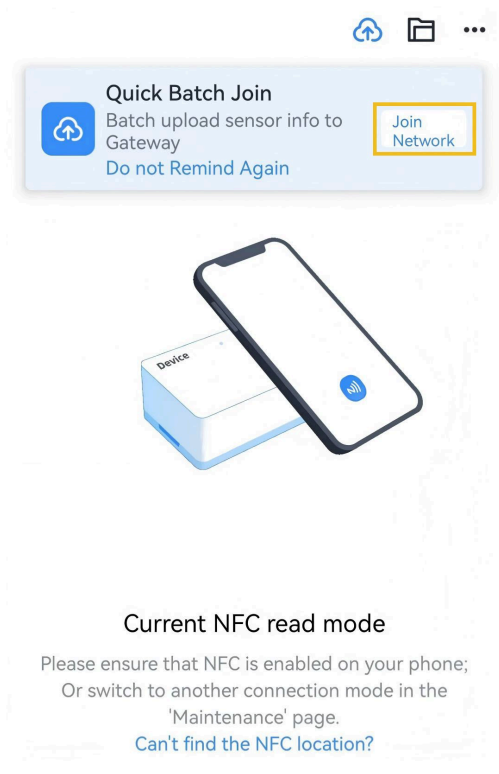
- Supported version: v2.1.5 or later.

Add Devices to Gateway in Bulk

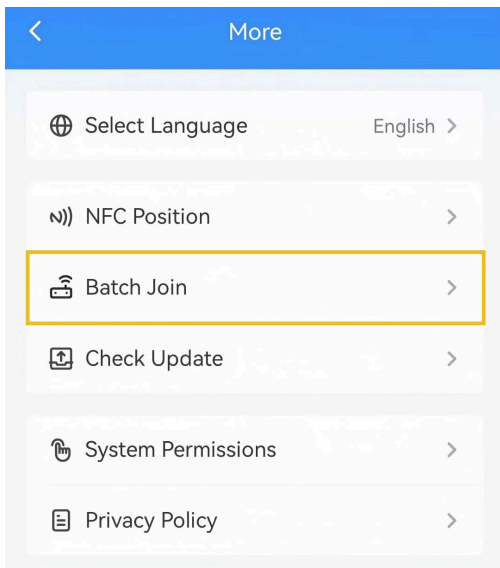
Step 1. Add Devices to Batch Join List

1. Navigate to **Batch Join** page.

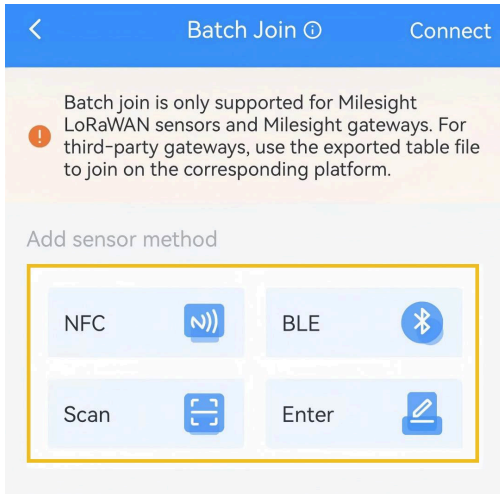
Method 1: After launching ToolBox, click **Join Network**.



Method 2: On the homepage of ToolBox, click  in the top right corner to navigate to **More** page, then select **Batch Join**.



2. Click **Add** and select the adding method according to the device type.



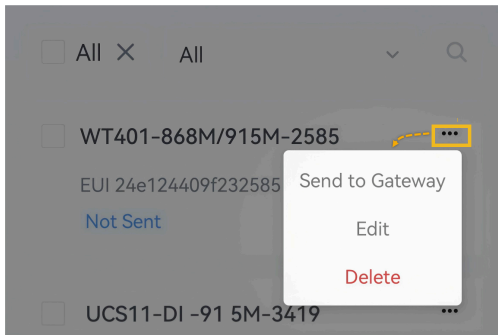
Method	Step
NFC	<ol style="list-style-type: none"> Enable NFC function on the smartphone. Put the NFC detection area of the phone close to the NFC antenna of device. Confirm the reading result and configure the parameters as required.
BLE	<ol style="list-style-type: none"> Enable the Bluetooth and location functions on the smart phone. Scan the devices around and select the target device to add. Confirm the scan result and configure the parameters as required.
Scan	<ol style="list-style-type: none"> Scan the label on the device or device box. Confirm the scan result and configure the parameters as required.

Method	Step
Enter	<p>a. Enter the device parameters directly. Join Type, Device Name and Device EUI are required.</p> <div data-bbox="516 388 1416 514" style="background-color: #e0f2f1; padding: 10px; border-radius: 10px;"> <p>i Tip: After saving, Join Type and Device EUI cannot be modified.</p> </div> <div data-bbox="516 546 1015 1276" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <div style="background-color: #0070c0; color: white; padding: 5px; display: flex; align-items: center;"> < Add sensor </div> <div style="margin-top: 10px;"> <p>Join Type</p> <div style="border: 1px solid #ccc; padding: 5px; display: flex; justify-content: space-between; align-items: center;"> OTAA ▼ </div> <p>Device Name</p> <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div> <p>Description</p> <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div> <p>Device EUI</p> <div style="border: 1px solid #ccc; height: 20px; margin-bottom: 5px;"></div> <p>Application Key</p> <div style="border: 1px solid #ccc; height: 20px;"></div> </div> </div>

3. Click **Add Next** to save the device parameters and scan next one.

i Tip:
Leaving the Application Key blank means using the default value.

- In the **Batch Join** list, click the three dots of the desired device, click **Edit** to modify the device parameters, or click **Delete** to delete this device as required.

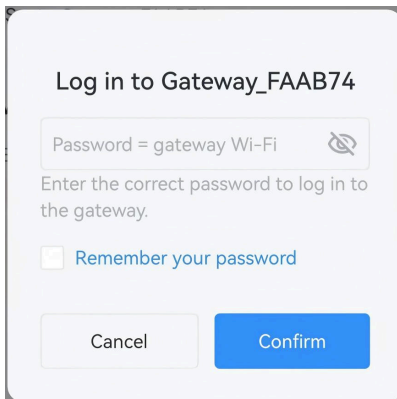


Step 2. Connect App to Gateway

- Click **Connect** in the top right corner of **Batch Join** page. If the App is already connected to a gateway, click **Switch** to change a gateway as required.



- Switch to the smartphone WLAN page to connect it to the gateway's Wi-Fi access point.
- Switch back to ToolBox App page, enter the gateway Wi-Fi password.

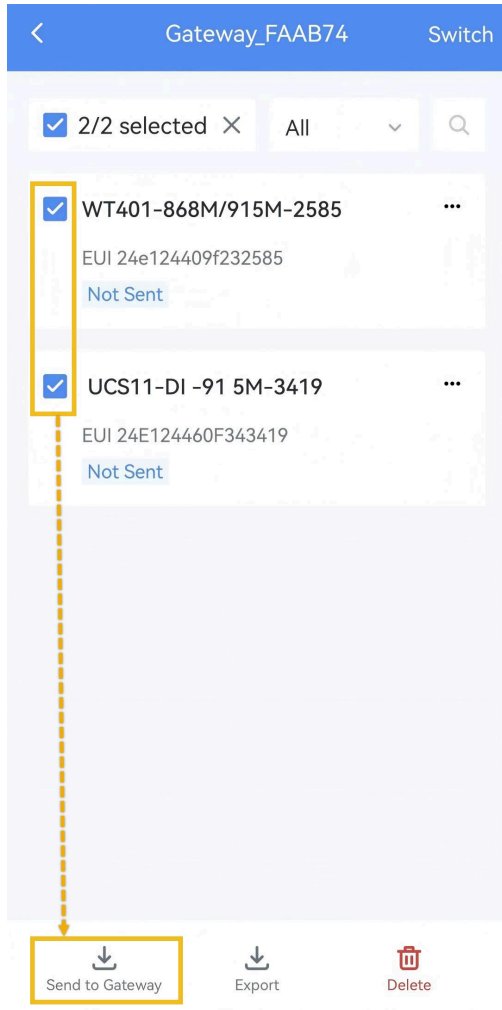


- Click **Confirm**. Then the App will connect to the gateway.

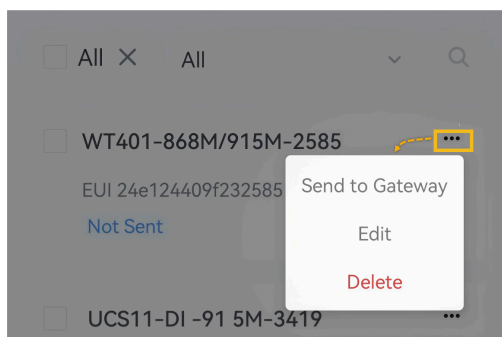
Step 3. Send Device to Gateway

- Select the devices to send to gateway.

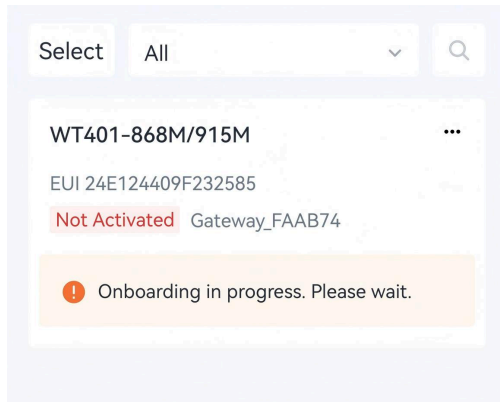
Send multiple devices: Click **Select** in the top left corner, then check the boxes of desired devices, and click **Send to Gateway**.



Send a device: Click the three dots of the desire device, click **Send to Gateway**.



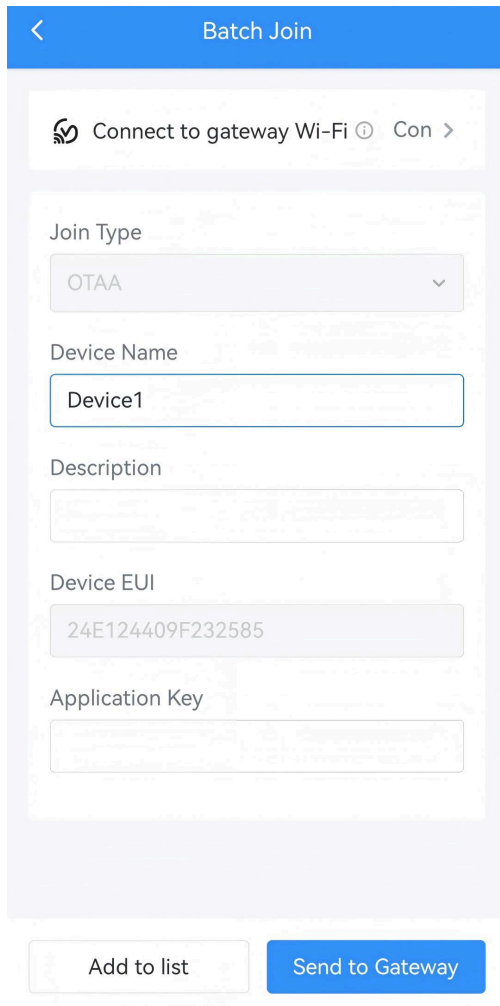
2. Click **Join Status** to read device network join status. If the join fails, the failure reason will be displayed.



Add a Device to Gateway

Limitation: The device supports NFC or Bluetooth configuration.

1. [Read the device](#) via NFC or Bluetooth.
2. On the homepage of ToolBox App, click **Send to Gateway**.
3. If the App is disconnected from gateway, click **Connect to gateway Wi-Fi**, then follow the [above steps](#). If the App is already connected to a gateway, click **Switch** to change a gateway as required.



4. Configure the Device Name, Description and Application Key as required.

**Tip:**

Leaving the Application Key blank means using the default value.

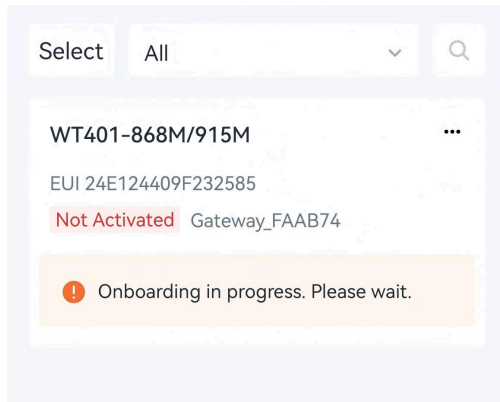
5. Send this device to gateway.

Method 1: Click **Send to Gateway** in the lower right corner. The device will be sent to gateway directly and added to **Batch Join** list.

Method 2: Click **Add to list** in the lower left to add to **Batch Join** list. Then follow [Step 3. Send Device to Gateway](#) to send devices in bulk.

6. Navigate to [Batch Join page](#) to check the device send status. If send failed, the failure reason will display.

7. Click **Join Status** to read device network join status. If the join fails, the failure reason will be displayed.

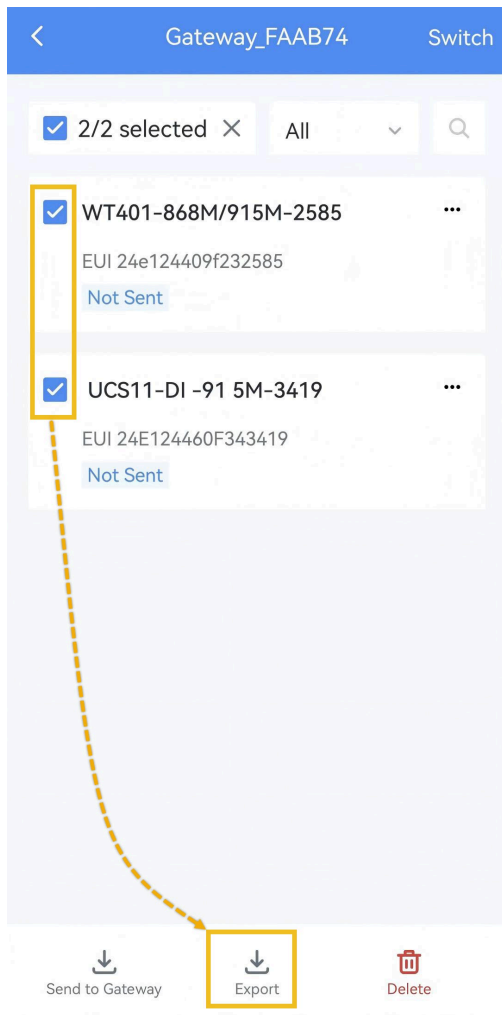


Export Batch Join Device List

The App can collect the device parameters to Batch Join list and export the list to the smartphone for other applications.

1. Follow [Step 1. Add Devices to Batch Join List](#) to add devices.
2. In the **Batch Join** list, click **Select** in the top left.
3. Check the boxes of desired devices.

4. Click **Export** to save a CSV file containing device parameters to the smartphone.



Chapter 5. Services

Milesight provides customers with timely and comprehensive technical support services. End-users can contact their local dealer to obtain technical support. Distributors and resellers can contact Milesight directly for technical support.

Technical Support Mailbox: iot.support@milesight.com

Online Support Portal: <https://support.milesight-iot.com>

Resource Download Center: <https://www.milesight.com/iot/resources/download-center/>

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